

Sept/Oct 1996
No 41

Backwoods Home



magazine

**SPECIAL
HARVEST
ISSUE**

INCLUDING

*using green tomatoes, tasty pickle recipes, harvesting greens in the snow,
corn storage, pressing cider, homestead dehydrator, making your pectin,
keeping apples, harvesting all year, cover cropping, sheet composting,
using leafmold, storing onions, delicious meals from stored veggies*

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My view

The “Leave Us Alone” coalition

Ever notice the way the news media and big government seem to work together, both at the national and local level?

At the national level it’s fairly obvious: If President Clinton had been anything other than the big-government Democrat he is, the media would have deep fried him long ago over things like Whitewater, Travelgate, Filegate, Vince Foster, Paula Jones, Web Hubbel, Guy Tucker, the MacDougals, or any of his other friends who are either under indictment, on trial, or in jail. Imagine a Ronald Reagan surviving a portfolio like that?

But on the local level the collusion is much more subtle. I picked up my local newspaper this morning and read one of the main front-page headlines: *Property tax jump unlikely*. The slightly smaller subheadline read: *Assessor says values level off*. The prominently-displayed story was essentially a feel-good piece about the local tax assessor’s office because he was not only not going to raise taxes, but he was going to lower some people’s taxes a little. Wow, what a guy!

The same newspaper a week ago prominently featured a list of county services that would be cut unless voters passed two upcoming ballot tax levies. Ominously, libraries and fire services were at the top of the list. I couldn’t help but link the two stories—you know, since they’re giving us a break on property taxes, we should pass the two levies and save the libraries and fire stations.

But I’m probably just paranoid. After all I’m a right wing, knee jerk, mean-spirited conservative who could care less about libraries and fire stations, not to mention children, old people, and anything else big government taxing and spending is meant to help.

Buried inside today’s newspaper is a story I consider important: *Taxpayers’ bill passes in Senate*. The subheadline reads: *Legislation aimed at abuses of IRS*. The story is about legislation passed overwhelmingly by both houses of Congress to make it easier for taxpayers to sue the IRS for wrongful collection of taxes. The story termed the bill a “Taxpayer Bill of Rights” and listed all kinds of ways Americans could legally tell the IRS to take a hike. But I guess the newspaper didn’t think that story very important, so it played it down by placing it inside the paper.

You know, I’m sick of the way the news media tries to feed me the news. They either ignore or play down stories I think are important, and they put on the front page news stories I often think are self serving to their big government allies in politics. From my local newspaper to national television news, they filter it through their own narrow big government-is-the-solution-to-everything prejudice. Did you know that more than 85% of the members of the news media admit to being liberals or Democrats? I suppose it’s only natural for them to think big government is the solu-



Dave Duffy

tion to most problems. They probably can’t begin to comprehend that someone like me just wants to be left alone, that I pay my property taxes grudgingly and think they should be abolished altogether, and that I think most tax levies are a waste of money, even the ones the lying (or stupid) news media claim are the only way to keep the libraries and fire stations from closing.

I am a member of that newest huge coalition that has emerged in America during the last few years—the “Leave Us Alone” coalition. We’re made up of people with differing opinions, but what we share in common is we don’t like big government with its tax and spend solutions, and we don’t trust the news media which has become little more than the mouthpiece of big government.

And as many members of the “Leave Us Alone” coalition have done, I’ve begun not only resisting all attempts by big government to control my life, but I’ve begun turning off the news media and turning to alternative methods of getting news. For example, I have cancelled my subscription to my local newspaper and have stopped listening to most national television news.

Instead I rely on several good newsletters and radio shows, but in particular I rely on the relatively unfiltered versions of news found on TV’s C-SPAN network and the comprehensive news CNN offers over the Internet on its World Wide Web page. Even though CNN still arranges news selectively on the Internet, it’s easy to rearrange the news according to my own view of what’s important, and it’s easy to dig deep into a story, getting all the detail I want, even to the point of going right into a politician’s email basket and telling him what I think.

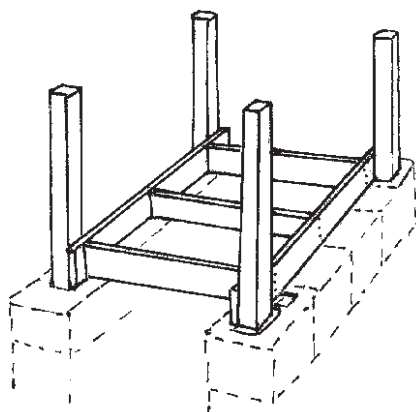
The Internet, I think, is emerging as the greatest freedom tool of the twentieth century. No wonder big government is already making noises about controlling the Internet to save-get this—the children from pornography. What a laugh. Who they really want to save is—you guessed it—they-selves. Δ

For large quantity food dehydration try this homemade gem from the past

By Rev. J.D. Hooker

The thing I like the most about *Backwoods Home* is that, unlike a lot of other magazines, the articles are written by folks who are actually doing the things they write about. Folks like Massad Ayoob, Don Fallick, and Dynah Geissal have already learned their stuff by trial and error, which can save the rest of us the time, troubles, and expenses of initial experimentation. It's good to fool around with new ideas, but we can use other folks' experience as proven starting points, and then adapt our own ideas and improvements into their concepts. As an example of building on someone else's experience, let me tell you how I ended up building the perfect large-quantity food dehydrator.

Since our garden, fruit trees, strawberry patches, etc., have always produced abundantly for us, we've worked at developing the skills to preserve this abundance from one harvest to the next. Canning and freezing only go so far, so for a couple of years we



2. Install supports for trays.

fooled around with various types of dehydrators. The relatively inexpensive Ronco brand electric dehydrator we purchased at an area gun show works great for *small* quantities, and we find it very useful for that.

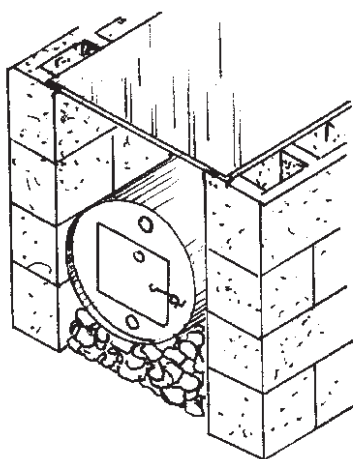
However, solar dehydrators turned out to be an entirely different story. I can tell you from experience that unless you're living somewhere like one of our southwestern deserts, where you can depend on plenty of hot, dry weather for lengthy periods, solar dryers (whether purchased or owner-built) just aren't dependable enough for real backwoods-type use. As a result, I fooled around with several other ideas, but none of them worked out to our satisfaction.

I might have given up on the idea entirely had it not been for the intervention of an elderly friend whose family has owned and operated an apple orchard for several generations. Not only did this gentleman show me more than I'd ever thought of knowing about apple varieties (best choices for eating, baking, sweet and hard cider, applejack, etc.), but he also showed me what was left of the big

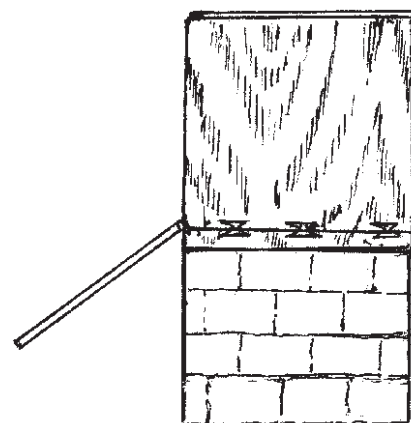
wood-fired fruit dryers that his father and grandfather had used in the days before electric refrigeration, large commercial canneries, and such. While he explained how they were used, we looked them over. Remembering from his early youth, he also told me how his family, and other large commercial growers, would dry many tons of fruit every year. Demand always outran what they were able to supply.

Though the dryers on his property had pretty much fallen apart from years of decay and neglect, some simple measurements showed me that, when up and running, each one would have been easily capable of holding 30 bushels of produce. He assured me that regardless of the weather conditions, 24 hours was the maximum drying time, even for the juiciest fruit.

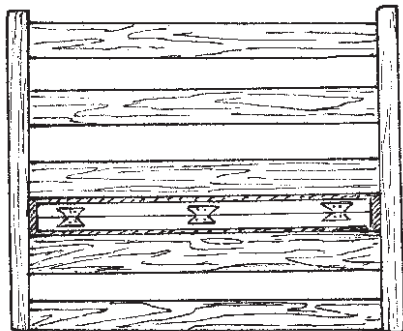
Although 30 bushels seemed much more than we'd ever need to dry in one shot, it was easy to see how such a simple wood-fueled dehydrator could be built in practically any size. There was a heat source at the bottom with interchangeable drying trays



1. Dry-stack block to make three walls. Rest the barrel on a bed of stones. Set 4x4s in the corners and sheet steel on top.



3. Cover three sides with plywood, hinged for access.



4. Leave openings in the fourth side for inserting and removing trays.

arranged over it, with eave vents and a sort of cupola vent on the roof (kind of like what you see on many older barns) to allow the rising warmed air to carry away the moisture from the drying fruit. I later learned that on cool nights, you can watch the vapor escape from these vents.

After tossing this idea around for a while, and fiddling with some figures to come up with a size more appropriate for our own use, I built a scaled-down version of those commercial dryers. Now, about 15 years later, it's still serving our family's needs perfectly. This simple design is so readily adaptable that you can include your own modifications to adapt it to your needs. So, while I'm going to detail the design that I used, remember that you can change practically any of the details and techniques to suit your own requirements and resources.

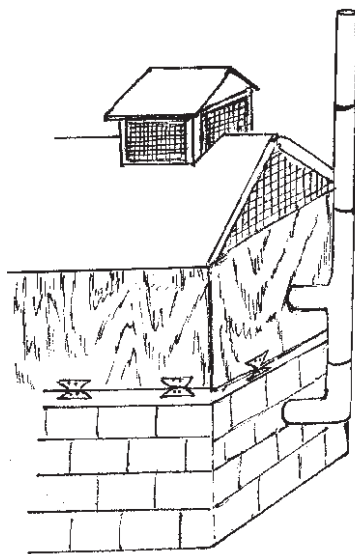
First of all, since I'd already located a reliable source for free, empty 55-gallon steel drums, I decided to build a simple barrel stove for the heat source. Laying the drum on the ground, I stacked extra-wide (16") foundation blocks around three sides of the drum, fashioning three unmortared walls, two blocks taller than the drum. Next, I filled in the area between these block walls with ordinary field stones to the level of the top of the first row of blocks, so as to keep the stove up off the ground.

I dropped 4x4 timbers into the hollows of the corner blocks and fashioned a wooden framework to hold the drying trays. On three sides of the dehydrator, I used half-inch CDX plywood to close them off completely. However, each piece is hinged at the bottom, being held shut by hook-and-eye fasteners at the tops, to allow for easy access for cleaning after each use. On the fourth side, I left openings similar to those of a chest of drawers for inserting and removing the drying trays.

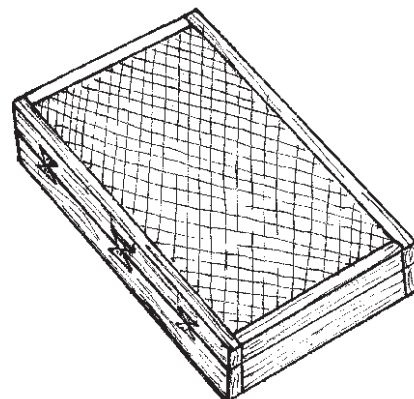
I built the trays from 1x3s and the lids from 1x2s. I used hardware cloth for the tray bottoms and metal window screen to cover the tops, which are fastened to the trays with hinges. I also used metal window screen to cover the eave and cupola vents to further prevent any possibility of insect damage. I used painted canvas for the roofing material (as covered in the May/June 1996 issue of *BHM*).

Note: Since this will be used for food processing and there is heat involved, you should not use pressure-treated lumber and avoid lead-based paint.

I used a hammer and cold chisel to cut an eight-inch-diameter hole in one end of the drum for fitting a stovepipe,



5. Install roof, vents, and stovepipe.



6. Hinge lids to trays.

and I cut a square access door in the opposite end. I used cheap hinges and sheet metal screws to reattach the square of metal removed from the door opening, along with a simple hook-and-eye to hold this door shut. This works just as well as the door provided with a purchased barrel stove kit; it just doesn't look quite so pretty. Adding a damper in the stove pipe, and being able to remove or reinsert either or both of the original barrel plugs, allows for heat control.

The most expensive part of this whole setup (and it didn't cost that much), was a piece of 1/8" steel cut to rest on the inside two inches of the top of the block wall. This creates a *much* more even distribution of heat, and the extra width of the block wall keeps the heat just far enough from the wooden outer walls.

In use, you'll need to rotate the trays every couple hours or so. Just remove the top tray, setting it aside for a moment, and raise each of the remaining trays one position. Then take the tray you'd removed from the top, and reinsert it in the lowest position. It's also necessary to keep a low fire going inside the stove during the entire drying process. During the day, we work in shifts, adding dry corn cobs and keeping the draft regulated as required. Then towards bedtime, we load the stove up with large, unsplit,

only-partially-dried logs (remember, this is out-of-doors, not inside your living room, so a chimney fire isn't a major problem) and damper the stove almost all the way down. At least two or three times during the night, one of us will get up to go out and reshuffle the drying trays.

Usually we begin the drying process early in the morning. That way, by the time we're up and about the next morning, the dehydration process is normally completed.

Generally, we use dehydrated fruits and vegetables in one of two ways. There are plenty of other methods for using dried foods, but these two are our family favorites. The first method is simply to reconstitute the dried food by soaking it in water overnight, then using it in exactly the same manner as frozen food, in any recipe. This tastes a little better than using frozen fruit or vegetables, but otherwise you can't really tell the difference. The other method we like is to run the thoroughly dried food through our hand-cranked grain mill, producing pumpkin, potato, and other specialty flours, as well as apple, tomato, carrot, onion, and other "powders," which are terrific cooking aids.

Remember, you can vary the size, construction techniques, materials, and so forth to customize this design to fit your own circumstances. For example, you could build a really large masonry firebox, or use a smaller 30- or 15-gallon drum, or even an inverted washtub, for the heat source. You could substitute dowels, laths, or sticks for the trays, if you'll only be making jerky, drying fish, and such. Or you could make any number of other customizations. So whatever your food storage needs might be, a similar wood-fueled dehydrator could prove just as perfect for you as ours has for us. Who knows, you might even find that there's a market in your area for some of your delicious dried fruit. Δ

Cracking walnuts—"almost fun"

By Lydia Mayfield

Uncle Tol would never use any of the wonderful black walnuts that grew along the creek on his farm. He said a man would starve to death picking out the meats, and besides that, the bits of black hull that always got mixed up with the nut meats could poison him. That was before we got an old conventional washing machine and a commercial black walnut cracker. We already had an old hand corn sheller. Now getting the meats out of black walnuts is almost fun. Even Uncle Tol helps pick them up. This is the easy way to harvest black walnuts.

As soon as the walnut hulls are black and dry, hull them with a corn sheller. Sometimes it is best to run them through two times. Then fill the washing machine with cold water and

wash them. Put in only a half bushel of nuts at a time, and wash them at least a half hour. The tumbling takes off all of the black hull. When you take them out, rinse them in cold, clean water and lay them out to dry. The water in the machine has to be changed frequently.

When the nuts are thoroughly dry comes the cracking. For this you can use any of the manufactured crackers on the market. All of these crackers crush the shell and allow the meats to fall out in large pieces, mostly quarters. There will always be a few meats left in the shell that have to be dug out with a pick, but for the most part the nut meats need only to be picked out from the shell, and there is no bitter hull left. It really makes picking out black walnuts almost fun. Δ

Keep your onions fresh... with panty hose!

By James Robertson

If you enjoy onions (like I do), then you probably enjoy eating fresh onions throughout the winter. The problem is keeping them fresh for long periods of time.

I have found that the best way to keep your onions is to put them in panty hose.

Panty hose?

Yep, you take a pair of panty hose and cut off the top part. Then put an onion all the way down into the end of the foot and tie a knot in the hose just above the onion. Put the next onion down on top of the knot and tie a knot just above that one, and so on. Hang the filled panty hose up somewhere cool and dry, and the onions will stay absolutely fresh.

What you're doing is keeping the onions from touching each other,



thus eliminating the main cause of onions going bad.

You're also putting some extra miles on those old panty hose before they have to become part of a landfill somewhere. Δ

Pectin — You can rely on the grocer, or you can learn to make it yourself

By Rev. J.D. Hooker

It's difficult for most of us to realize that a lot of the things we take for granted today were unavailable not all that many years ago. Yet our ancestors seem to have managed just fine without them. As just one example, the vast majority of even the most independent-minded modern homesteaders would be pretty hard pressed to put by all those jars of delicious homemade jams, jellies, preserves, marmalades, and fruit butters, were it not for the ready availability of commercially produced powdered or liquid pectin, sold for home canning.

Yet my wife learned from her grandmother (more years ago than she'll admit) that such simple products didn't even exist until relatively

recently. And no one ever noticed the lack of such a basic "necessity." Still, today, none of the women in her family ever bother with any of the various brands of "store boughten" pectin, relying instead on the following recipe, which has been verbally handed down through the female side of her family tree for longer than anyone can remember.

Place 10 pounds of stemmed and quartered (but unpeeled, and not cored) green apples into a large stock pot. Add water to cover, and bring to a full, rolling boil. Reduce the heat, cover the kettle, and simmer until the fruit is very soft (approximately 30 to 45 minutes). Using another pot to catch the liquid, strain the fruit through a jelly bag, allowing the fruit in the bag to continue to drain overnight. The next day, boil down

this liquid (approximately three quarts to begin with), until only two cups of liquid remain. Store in tightly-closed canning jars. Use this home-produced pectin exactly as you would regular grocery store type liquid pectin, in any recipe.

You won't save a whole lot of money by producing and using your own pectin, since even the most expensive name brand fruit pectin is pretty cheap. But making your own pectin for home canning uses will let you have some fun, while providing a use for many of those apples that fall off your trees before ripening. It may also allow you to feel just a mite more independent, and most importantly, allow you to simply laugh off any future supermarket shortage on canning supplies. Δ

A few strings attached

By Marcia Brown

Grandma's pride and joy is three acres of flower gardens surrounding the family farmhouse. When a neighbor's game chickens began escaping from their pens and invading Grandma's carefully tended flower beds, she was frantic. These birds ate seeds and small bedding plants and even damaged shrubs.

Pleas to the marauders' owner brought effusive apologies but no fence mending.

One morning after Grandma discovered her seed beds destroyed once more, she wrote something with fierce strokes on several pieces of paper. She then threaded yellow corn on long pieces of



string, and to each end she tied one of the notes.

Shortly, several game chickens returned to her garden, eagerly gulping down the strings with corn and then running off with notes dangling from their beaks. That was the last we saw of invading game chickens.

"Grandma," I asked later, "did you write something rude about those birds?"

Her blue eyes twinkling, she replied, "Oh, I just invited their owner over for a few meals of exotic chicken—roasted, barbecued,

and fried—and gave the dates!" Δ

Those leftover fall tomatoes are a delicious bounty that should be put aside for the future

By Alice B. Yeager

Photos by James O. Yeager

Some of us were brought up on stories of frugality and the merits thereof. You know, like the tale about the ant and the grasshopper. We were also introduced to bits of wisdom such as “Waste not, want not,” “A penny saved is a penny earned,” and so on. Not a bad way to go in this day of maxed-out credit cards, inflated prices, and other financial obstacles.

Gardeners are for the most part a thrifty lot. Maybe that’s why we hang on to our old garden tools and try to get the most out of the plants we grow as long as there’s hope for more yield. We appreciate vegetables fresh from our own gardens, and there’s the fringe benefit of mental satisfaction in knowing we can grow our own produce. You might call it an independent-living kind of pride.

Among my seed selections each year are several varieties of tomatoes and peppers. (Perusing seed catalogs is a great winter pastime.) I compare prices and shipping costs, taking note of recommended growing zones. I am particularly interested in plants that “will do well under hot, humid conditions.” This describes summers in Southwest Arkansas—Zone 8. It tells me that these plants are more likely to survive summer and produce a fall crop.

Later comes the spring work of soil preparation, transplanting, etc. After all of the effort put forth, I want to see healthy plants that produce as long as possible. Lack of water at the height of their production is one of the main reasons certain plants fail to survive to produce well in the fall. All that is needed is a little TLC to bring them through summer’s dry spells. Plants need watering when drought conditions prevail, but the time spent watering

can be reduced if a thick organic mulch is put down to help retain moisture in the soil. I like to use a mixture of leaves, pine needles, twigs, etc., as leaves alone tend to mat. These things add nutrients to the soil as they break down, and a good mulch also discourages weed growth. Earthworms will move in to till the soil and keep it pliable *if* they are not discouraged by the use of chemical fertilizers.

When the end of the gardening season is in sight, many of us think it downright sinful to let the bounty go to waste that is still being produced. Cool fall weather often brings out the best in plants that have endured summer’s heat. Tomatoes take on a special zest. Bell peppers taste sweeter. The downside is that everyone has had their fill of tomatoes and peppers, and no one is enthusiastic about going out and gathering more. This is when a frugal conscience kicks into gear. Why not put more aside for the future? Home-canned vegetables are always in demand, for church suppers, gifts, and so on. Who knows what the next gardening season will be like? There may be an onslaught of Japanese beetles, too much rain—all kinds of negative things. Think about unpleasant winter days when it’s nice to be able to avoid the supermarket. Surplus tomatoes, as well as other vegetables, can help stock a pantry with nutrition. (It’s the ant and grasshopper story all over again.)

Plenty of jars of stewed tomatoes sitting in a pantry will

not only be useful for soups, spaghetti sauce, Mexican dishes, etc., but they will cut down on the grocery bill. (See recipe below.) There’s a world of difference between the taste of home-canned tomatoes and those that come from a metal can.

If frost threatens when vines are loaded with green tomatoes, the tomatoes nearest maturity may be laid on straw to ripen in a cool room (with no direct sunlight). These



Try stocking your pantry with some stewed tomatoes (red jars) and green tomato relish, or “fish pickles” (green jars).

fruits may not have the taste of the summer crop, but they'll be better than the ones at the supermarket. The small green tomatoes don't need to go to waste, either. Down South we turn green tomatoes into green tomato relish, that delectable mixture served at our catfish restaurants, as well as at home. We call them "fish pickles." (See recipe.)

Fried green tomatoes are now famous, thanks to the title of a recent movie. If you haven't actually tried this southern recipe, you are missing a real culinary treat that's not at all hard to make. This side dish probably originated as a product of necessity, but like so many others, it has become a favorite on our menu. Medium-size green tomatoes barely showing a tinge of red are best for frying. (See recipe.) Remember, don't knock it if you ain't tried it.

There are plenty of ways to turn late summer's produce into something delicious. Some of the best ideas come from books published by companies manufacturing canning supplies— Ball, Kerr, Mason, etc. Some books may be had for a small fee and others are free.

Be an ant—don't let that fall crop go to waste.

Stewed tomatoes

1 gallon ripe tomatoes
2 cups onions, coarsely chopped
1 cup celery, coarsely chopped
1 cup sweet peppers, coarsely chopped
1 Tablespoon sugar
2 teaspoons salt

Wash all vegetables before using. Scald tomatoes in boiling water about one minute so that skins may be removed easily. Quarter tomatoes and then measure to be sure of correct amount. Mix all ingredients together in a stainless steel or porcelain pot. (Do not use aluminum.) Bring to a boil and simmer ten minutes. Stir occasionally to prevent sticking. Pour mixture into hot, sterilized jars and process in canner. Pints require 15 minutes and quarts 20 minutes at 10 pounds pressure.

Remove jars from canner, cover them with a light cloth, and let stand in draft-free place for several hours or until cool. Check to see that all lids are down or stay down when



*Don't let green tomatoes go to waste.
Try making green tomato relish
or fried green tomatoes.*

pressed. Jars with lids that have not sealed should be put in refrigerator and contents used within a few days.

Green tomato relish (Fish pickles)

2 gallons green tomatoes cut in bite-size chunks
 $\frac{1}{2}$ gallon sweet peppers, coarsely chopped (use both green and red)
 $\frac{1}{2}$ gallon white onions, coarsely chopped
10 Jalapeño peppers cut in rings (optional)
 $\frac{3}{4}$ cup salt
8 cups sugar
 $\frac{1}{2}$ gallon apple cider vinegar
1 Tablespoon crab boil OR pickling spices
1 teaspoon whole cloves

Put vegetables in a large stainless steel or porcelain container. (Do not use aluminum.) Sprinkle with the salt

and let stand about three hours. Drain well. Do not rinse.

Dissolve sugar in vinegar and bring to a boil. Put spices in a clean cloth bag or large stainless steel tea ball and add to vinegar. Add drained vegetables and simmer until all are hot throughout and onions are clear. Remove spices. Pack mixture into hot, sterilized jars and seal. Cover hot jars with a light cloth and let stand in a draft-free place for several hours or until cool.

Fried green tomatoes

4 medium-size, firm tomatoes—
green with just a tinge of red
1 large onion
 $\frac{1}{2}$ stick oleo OR butter
Salt and pepper

Thinly slice onion and fry in oleo until tender. Remove from pan and reserve to put over tomatoes. Slice tomatoes in $\frac{1}{4}$ -inch thick slices and fry in oleo about $1\frac{1}{2}$ minutes on each side. Sprinkle with salt and pepper while cooking. Remove from pan, place on serving dish, and cover with reserved onions.

Another version: Dip tomato slices in your favorite batter and fry. Batter may be enhanced with the addition of dried herbs such as sweet basil, thyme, etc. Δ

Apple-dapples — fun to make and even more fun to snack on

By Linda Gabris

One of my favorite memories of growing up was in autumn, when Grandmother's cozy kitchen was filled with the tangy aroma of apple. We'd sit at the table in front of the crackling wood stove with spools of string, threaded needles, and a bushel or two of washed, sorted apples ready for drying. While Grandpa cored and sliced, Grandmother and I strung apple rings into long, dangling chains ready to be hung from the ceiling behind the stove.

Today, I sit at my own kitchen table with my children, and we string fra-

grant apples in the same old manner as we did way back when I was a child. It's not only a fun family activity, but also a great way to use up your surplus apples. Dried apples, or "apple-dapples" as we still fondly call them, are one of my family's favorite snack time treats.

In my younger days, favored apples such as Macintosh, Spy, and Golden Delicious were stored in the root cellar for hand eating over the winter. Only bruised, overripe, or less sweet varieties, like crabapples, were strung and hung. Today, I dry whatever bountiful variety our trees offer, and I have found that even the tartest, sourest apple becomes a gem when dried.

After hours of singing, stringing, and hanging, the wall behind the kitchen stove is curtained in fragrant apples. The strings of apple rings will normally hang for about five to eight days, depending on the temperature of the room. But they can hang for an indefinite period with no harm done. The apples are ready when they are shriveled and leathery brown.

When the apples are dried, we cut them down and unstring the rings into gunny sacks to be stored in the attic for winter use. Apple-dapples are hard to resist, so you better hide a sack or two in the rafters for safe keeping as I do, or the kids will have them all eaten up before you know it.

On snappy winter evenings, we fetch the tin Chinese checker board out onto the kitchen table and herd our marbles into their corners. On such special occasions, I will bring down a heaping bowl of apple-dapples for nibbling while we take turns



jumping our marbles across the board. Those who can't keep their fingers out of the dapple dish will likely end up on the losing side of the board. A little dish of apple-dapples can also make homework time more pleasant.

At the first hint of a winter cold, I do as my Grandmother would have done: I quickly steep up a handful of dried apple rings and a few whole cloves in boiling water. Strained and sweetened with honey, it's a favorite medicine that never needs any coaxing. Sometimes I think that my kids can conjure up a cough or a sniffle at the mere thought of this pleasing drink. After a brittle day's worth of outdoor chores, dried apples steeped in boiled red wine and sweetened with lots of brown sugar are a sure cure for chilblains.

I use wonderful dried apples in desserts all winter long. They are great added to rice pudding and served with hot nutmeg milk. Another favorite is stewed dried apples served with buttered scones. Dried apples are as popular in my recipes as raisins or chocolate chips are in most kitchens. Although my family enjoys dried apples in many ways, I'm sure our very favorite way is apple-dapples right off the string. What a delightful, tart, chewy treat.

And when my kitchen is filled with the autumn aroma of drying apples, it fills my heart with beautiful memories. Δ



It's easy to build your own milking stanchion

By Janell Henschel

A few years ago, my husband and I purchased two F-1 heifers to add to our commercial beef herd. One of the calves was a Hereford-Jersey cross we named Rosey. She was very friendly from the start, and as her calving date drew near, it was obvious she was destined to become a family milk cow.

I began to purchase supplies in advance so I would be ready to milk my first cow. I bought udder wash, sponges, udder cream, a milk bucket, etc., etc. But where was I going to milk her? I didn't have a stanchion, and I couldn't locate a used one. Rosey's calf was due in a week and I was getting desperate. We had lumber left over from a project we had been working on, so I decided I would build my own. It turned out to be the easiest thing I've ever built.

Locate your stanchion in a well-lit area of your barn, especially if you don't have electricity. Using an existing space on a wall would be best: you will have one less post to buy, your cow won't be able to move away from you, and your stanchion will be sturdier.

Materials:

- 1 or 2 - 6" x 6" x 8' posts (2 if you don't have an existing post)
- 3 - 2" x 6" x 8' boards, cut in half to make 6 four-footers
- 4 - 2" x 6" x 6" blocks from scrap (or buy 2 - 8' boards and 1 - 10' board and cut your blocks from it)
- A handful of nails (about 30)
- 4 feet of baling twine or light rope
- 1 brass snap
- 2 sacks of redi-mix concrete
- 1 tie ring with a heavy wood screw on the end

Set your posts two to three feet deep in concrete, four feet apart measuring from the outside edges. Make sure they are level and even. Refer to the diagram for measurements and order of construction. You will want your movable vertical board nearest to the wall or on the off side of the cow. Nail it with one nail only to the lower horizontal board, centering the nail. When you nail the outside horizontal boards over the vertical boards, nail at the ends only. If you nail through the vertical boards, your moveable board will not move freely. Tie a loop in your twine or light rope and place over the end of the moveable board. Tie the brass snap to the other end, adjust for the comfort of your cow, then snap to the tie ring that has been screwed into the post.

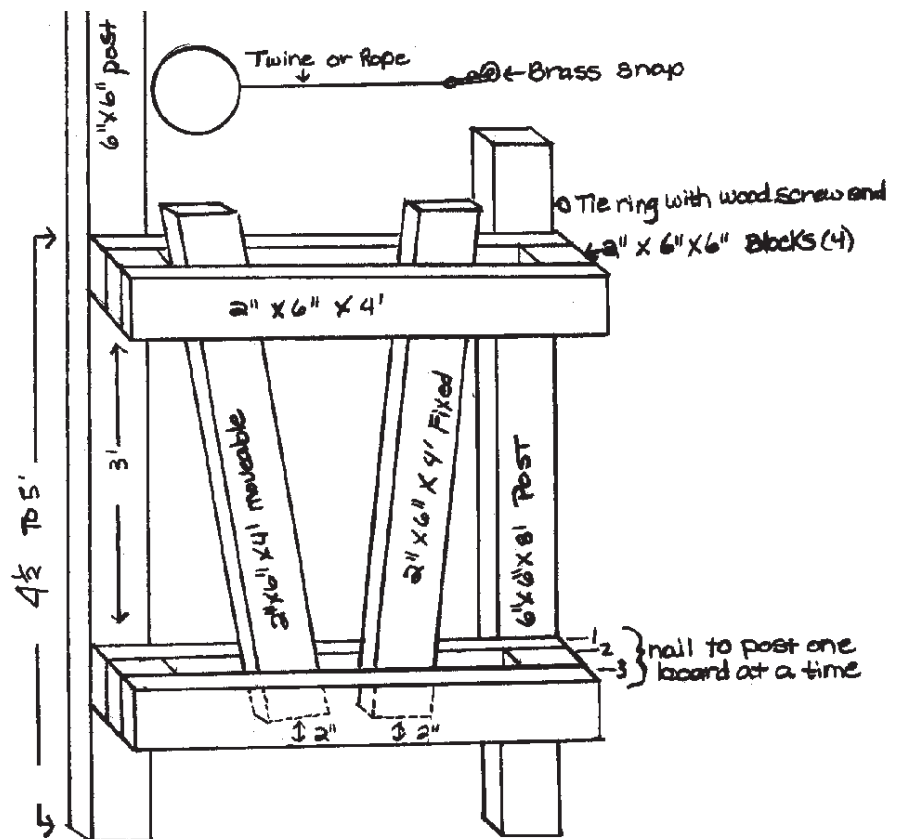
You should have some kind of non-porous floor for your cow to

stand on. A cement pad, rubber mat, or even a piece of plywood will work. If you use plywood it must be kept dry or it will be very slick.

If, after building the stanchion, your cow still won't stand, there may be something bothering her. Check the udder for cuts, scrapes, bruises, flies, and fly bites. Use bag balm to help heal and prevent the flies from biting.

For a cranky cow that likes to kick, you can purchase cow hobbles or a stop-kick device from your local feed store or supply catalog.

If you can find a used portable milking machine at a reasonable cost, this may be your answer. After all is said and done and your cow still won't stand, your only other option is to sell her. There are plenty of good family milk cows available that would be a pleasure to own. Δ



You can make delicious meals all winter with stored vegetables and dried spices

By Jennifer Stein Barker

Having a root cellar, attic, and pantry full of stored vegetables and dried herbs can make life pretty pleasant on the homestead in the winter. Instead of going to the grocery store, you just mentally run through the larder and ask yourself, "What have I got in storage?" before making up the menus.

Cooking frequently with the same ingredients doesn't have to lead to dull, repetitive meals, if you enjoy a well-stocked herb pantry and an international cooking repertoire. The vegetables you have in storage may be predetermined for the rest of the winter, but you can always change the meal's basic character by changing the carbohydrate: choose pasta, potatoes, bulgur, rice, or bread.

For added variety, change the flavors and seasonings to Oriental (ginger, garlic, and hot peppers), Italian (tomatoes, herbs, red wine, and garlic), or Russian/Yiddish (dill and yogurt).

My article in the May/June 1996 issue, "Quick-and-easy pasta recipes," contains some good recipes for using storage foods. Below, you'll find more ideas and recipes for a full meal using fruits and vegetables that can be found on well-stocked winter homesteads in most regions of the country.

Carrot-raisin salad

This salad is an American basic, and with good reason. The ingredients are very simple and always available. It stores well. And you can always take it with you, to potlucks, picnics, or parties. Serves four.

2½ cups coarsely grated raw carrots
½ cup raisins
2 teaspoons fresh lemon juice
⅓ cup plain Lafayette yogurt
1 - 2 teaspoons maple syrup (to taste)

Toss the carrots lightly with the raisins and lemon juice. Blend the yogurt and syrup, and stir into the carrot mixture. Chill at least 30 minutes before serving.

Russian variation: leave out maple syrup and raisins. Add 1 Tablespoon finely chopped onion, ¼ cup frozen peas, and ¼ teaspoon dill weed.

Lima bean and sage chowder

A savory soup for fall and winter. Serves four.

1¾ cups small white lima beans
2 cups diced onion
1 Tablespoon olive oil
6 cups stock or water
¼ teaspoon celery seed
2 bay leaves
1 Tablespoon tamari
3 medium carrots, halved and sliced
2 lbs. boiling potatoes, diced
1 daikon radish, quartered and sliced
2 teaspoons rubbed sage
2 Tablespoons tamari
¼ cup water
4 Tablespoons fine whole wheat flour

Soak the dry lima beans overnight, or use the quick soak method: cover with plenty of water, bring the beans to a boil, and boil one minute. Remove from heat and let soak one hour. Discard soaking water, rinse beans, and proceed with recipe.

In a large stockpot, sauté the onion in the olive oil, covered, until beginning to brown around the edges. Add the



stock or water, celery seed, bay leaves, tamari, and soaked beans. Bring to a boil, adjust heat to simmer, and cook until the beans are just tender (about one hour).

Add the prepared carrots, potatoes, daikon, sage, and tamari. Cook about 20 minutes more, until the vegetables are tender. In a small cup, combine the water and flour to make a smooth paste. Remove some of the soup stock from the pot and mix with the paste, then return the mixture to the pot, stirring well to blend.

Cook another five minutes, or until the soup thickens. Serve immediately with a fresh salad or green garnish, and plenty of homemade bread.

Herbed potatoes

A quick and easy main or side dish to make from your root cellar vegetables and home-dried herbs. Serves six as a side dish.

3 pounds red or yellow potatoes
2 Tablespoons olive oil
2 cups diced onion
4 cloves garlic, minced
 $\frac{1}{4}$ teaspoon celery seed
 $\frac{1}{4}$ teaspoon dried marjoram
 $\frac{1}{2}$ teaspoon dried savory
 $\frac{1}{2}$ teaspoon oregano
1 small hot pepper
2 Tablespoons tamari
1 cup grated kohlrabi or carrot
1 cup meat or vegetable stock

Dice and steam the potatoes till tender. In a large, heavy skillet, cook the onions and garlic in the olive oil until they are tender and transparent. Add all the herbs, the kohlrabi or carrot, and the stock, and simmer gently until the liquid evaporates. Add the cooked potatoes, toss, and serve immediately or keep warm in a 200° oven for up to a half hour.

Apple pudding cake

This is a moist, sweet cake over a thick sauce full of apple chunks. Make sure you heat the sauce ingredients well. If you don't, the sauce will be too cold to bubble and thicken properly during the cooking time. Serves six.

4 cups finely diced apples (about 3 medium apples)
 $\frac{1}{2}$ cups whole wheat pastry flour
 $2\frac{1}{2}$ teaspoons baking powder
1 teaspoon cinnamon
1 cup milk
 $2\frac{1}{2}$ Tablespoons oil
 $\frac{1}{3}$ cup honey

Sauce # 1:

1 Tablespoon rum
 $\frac{1}{2}$ cup honey
 $1\frac{1}{3}$ cups boiling water
 $\frac{1}{2}$ teaspoon almond extract
2 Tablespoons fresh lemon juice

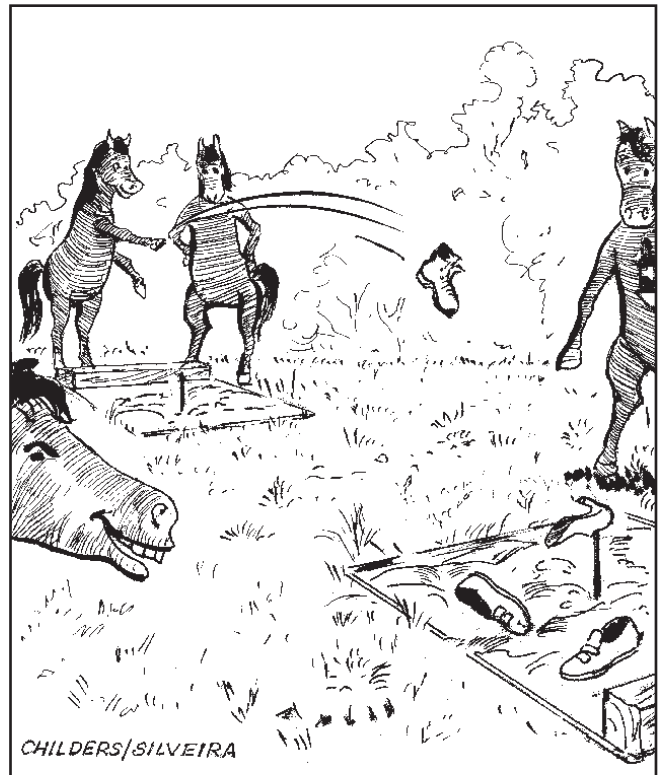
Sauce #2:

$1\frac{2}{3}$ cups apple juice
 $\frac{1}{2}$ teaspoon almond extract
2 Tablespoons fresh lemon juice
1 Tablespoon honey

Preheat the oven to 350°. Place the diced apple in the bottom of a two-liter casserole dish (do not use a smaller one). In a medium bowl, stir together the flour, baking powder, and cinnamon. In a measuring cup or small bowl, stir together the milk, oil, and honey until well blended. Add the liquid to the dry mixture, stir together well, and pour over the apples (don't worry about spreading it out evenly).

Now mix the sauce ingredients together (choose either Sauce #1 or #2) in a small saucepan, and bring to a boil. Pour the liquid over the batter and apples, but *do not stir*. It will sink down through the batter into the apples.

Bake for 45 to 50 minutes, until the cake is golden on top and the sauce has begun to bubble up around the sides. Serve hot, with the sauce spooned over the cake. Δ



Ten off-beat metal cleaning tricks

By Sandy Lindsey

- You can clean and brighten tarnished metal gauges and switches on appliances by rubbing on a whitening toothpaste. And while you've got your mother-in law's toothbrush out, whitening toothpaste also works wonders on scratches on plexiglass.

- Clean chrome fittings and fixtures that are severely pitted with #00 Bronze Wool. If that doesn't do the job, dunk it in Penetrol for added effect, then give the job some old-fashioned elbow grease. The Bronze Wool/Penetrol combination will also work on stainless steel and aluminum. (**Do not** use Penetrol on metals that come in contact with food.)

- To remove tough build-ups on decorative stainless steel, rub on alcohol and kerosene. Use a 100% cotton rag. The kerosene will return it to a near-original shine. (**Do not** use kerosene on stainless steel items that come in contact with food.)

- Use metal polish and a standard bottle cork to clean particularly stubborn rust or metal discoloration spots. Dampen the flat edge of the cork first, so that it absorbs some of the metal polish, then apply more polish and rub away. Rub the cork over the spot. Its flat surface and naturally abrasive properties will do the rest.

- Kitchen metal surfaces sticky from a child's gooey hands? Pour vinegar or straight lemon juice onto a sponge and wipe down the goop. Let the vinegar or lemon juice sit for a few minutes to cut through the residue, then wash off with soap and water.

- When cooking gets your pots and pans so greasy and grimy that you think you're never going to get them clean again, place them in a heavy-duty garbage bag. Add one cup of ammonia and seal the bag tightly. Leave overnight. The following morning the grease and grime will hose off. (**Note: Be sure to avoid inhaling** the accumulated ammonia fumes as you open the bag. And **do not use this procedure on aluminum.**)

- You can easily restore aluminum yard furniture that is pitted and dull, by scrubbing until it's smooth again with a soapy Brillo pad. Rinse, then wax thoroughly with a car or boat wax to retard further damage.

- An easy way to wax the tubular railings of lawn furniture is to put an old sweat sock over your hand, dip it into the wax, and go to work. By curving your hand around the railing, you'll be able to cover more area, more completely, in less time.

- Clean bronze that has turned green with a clear teak oil. It will not only remove the tarnish easily, but tends to retard further tarnishing for months afterwards.

- To restore rusty outdoor metals such as iron and steel, spray with an instant galvanize, such as CRC Instant Galvanize. Δ

A BHM Artist's Profile:

John C. Dean

John Dean is BHM's new Art Director, replacing the retiring Don Childers. Having pursued painting as a hobby while he raised three daughters, he began a career in jewelry design and manufacturing in 1980, and in 1990 included painting in his career. He is a well known artist in Brookings, Oregon, where he lives. Commercially his work



has been put on post cards, maps, signs, logos, tote bags, front porch displays, murals, and, of course, framed and hung for customers. He is an excellent portrait painter and has painted the portraits of several BHM staff members. His art can be found at BHM's web site: www.backwoodshome.com.

John is also a musician and is the lead singer and guitarist for his band, Johnny Cardiac and the Cardiac Arrest, which performs around the Brookings area and for BHM functions. He has a Bachelor's Degree from UCSB in electrical engineering and a Master's Degree from Caltech.

Here are some simple tips on how to store apples for a long, long time

By Don Fallick

Almost any kind of apple will keep for three or four months, or even longer, if stored properly. It's cheap and easy to do. All you need is newspaper, a box or basket, and apples. A root cellar is optional, but not necessary.

The main causes of apple spoilage are time, bruises, and contact with a rotten spot on another apple.

Time

Time can be stretched by selecting long-keeping varieties of apples for storage. Tart and thick-skinned apples like Jonathans generally keep longer than sweet or thin-skinned ones like Delicious. Good keepers also have very firm flesh. The best keepers I have found are Spur Winter Bananas—from C&O Nursery, P.O. Box 116, Wenatchee, WA 98807.

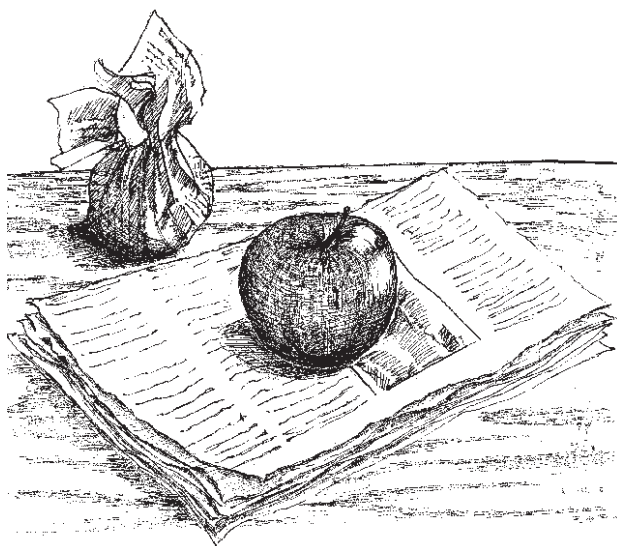
They are yellow and tart at harvest, but get redder and sweeter, and actually taste better after a couple of months in storage.

Contact

Prevent contact between apples stored for the winter by wrapping them individually in sheets of newspaper. The easiest way to do this is to unfold a section of newspaper all the way and tear it into quarters. Then stack the quarters. Avoid sections printed with colored ink, which contains poisonous heavy metals.

Place an apple on top of the stack and fold the top sheet of paper up around the apple, wrapping it in paper. Give the corners a slight twist—just enough to make them stay wrapped. If

you twist them too hard, the paper will tear. It's not necessary to exclude air. Just twist hard enough so the paper doesn't come unwrapped before the apples are boxed. The paper prevents contact between apples, so just one rotten apple won't spoil the whole bunch. With practice, you'll be able to wrap and store apples as fast as you can scan them for bruises and sort them.



Sorting

Always handle apples carefully, to avoid bruising them. Apples with even small bruises must never be stored with "keepers." Only perfect apples should be used for long-term storage. Even minor imperfections speed spoilage. While you're wrapping, check each apple for cut skin, soft spots, or bruises. Even bruised apples taste fine when they're fresh, so sort the best culls into a box to be eaten right away. If there are too many, make apple pie filling out of the excess. Use culls with extensive blemishes for cider. Or cut out any really gross parts and make applesauce.

My family owns two Victorio strainers. We blanch the apples to soften them, cut them in half, throw them in the hopper, and turn the crank. The Victorio separates the pulp from the skins, seeds, and stems, and produces fresh applesauce, ready for canning. With both strainers going, we can put up more than two bushels of apples an hour.

Canned pie filling, applesauce, and cider will keep for a year or more. Fresh cider that has started to turn sour can be made into hard cider, vinegar, or applejack (see Issue #35, Sept/Oct 1995). All three will keep indefinitely.

Storage

Boxed apples need to be kept in a cool, dark spot where they won't freeze. Freezing ruptures all of an apple's cells, turning it into one large bruise overnight. The usual solution is to store apples in a root cellar. But root cellars often have potatoes in them, and experts say that apples and potatoes should never be stored in the same room. This may seem incongruous, but there is a reason. As they age, potatoes release an otherwise harmless gas that makes apples spoil faster. If you can keep the gas away from your apples, they will keep just fine. Just don't store them right next to potatoes.

I keep wrapped apples in a cardboard box. It need not be airtight, just tight enough to impede air circulation. I've kept apples in an unheated basement, a pantry, an enclosed porch, an unheated attic, even in a root cellar, potatoes and all. Using these simple methods, I have kept ordinary apples until late February, and Winter Banana apples into March. Δ

Careful planning will make harvesting and preserving food a year-long process

By Dynah Geissal

What harvesting means to you will largely be determined by whether or not you have electricity. When I lived on my farm in the valley, I had power, and just about everything went into the freezer. Oh, I still canned fruits, pickles, tomato sauce, and such, but I had for the most part switched to freezing as my primary method of preservation. We butchered all the larger meat animals such as pigs, calves, and goats as soon as it was cold and/or whenever I had to start feeding hay. Only the breeders were overwintered.

Now, because I live on a mountain with no electricity, I have returned to canning. We also dry tomatoes, peppers, mushrooms, and berries on trays on the warming shelf of our cookstove. The lives of the smaller animals and some plants are extended to preserve "food on the hoof," so to speak. While we do maintain two freezers in town, the inconvenience of having our food over an hour away leads us to keep as much as we can here. I prefer to go out to the rabbit pen to butcher dinner, even though that may mean the litter is kept longer than optimal, rather than store them in the freezer.

Obtaining and preserving our food supply is as integral a part of our lives as maintaining our water system and our heat source.

Make a plan

Whatever method of preservation you choose, harvest planning is a year-round occupation. I suggest keeping a notebook or some such and writing in it what you expect to do during each month as you plan the harvest of your food. For exam-

ple: May 1—Buy weaner pigs; November 21—Expected butcher date for hogs. Of course, as time goes by, things change. These dates are not written in stone, but are merely a method of organizing an overall plan. For everything you plan to eat, write down dates of planting, breeding, butchering, preserving, or whatever. These tentative plans will help you to see your overall food design.

Year-round chickens

I start raising chicks in January so that I have live ones for most of the year. It's not easy without electricity, but it can be done. I heat bricks to keep them warm for the first couple of weeks, and their box is as near to the heat stove as it can safely be. The top of the box is covered with plastic so that they have light but also are kept warm. At night, I cover that with blankets and sleeping bags. If it's very cold, I get up during the night to replace the bricks with warm ones. When it's safe for them to move outside, they go into a refrigerator box inside the chicken house. Boy, do I miss my old brooder house. We hope to build our real barn this

summer, and then we will have a more permanent setup for the chicks, as well as all the other animals.

I get new chicks every couple of months through September in order to have some for sale and some for eating. After September, I get a break from chicks. It isn't really practical to raise them in the fall. They don't grow well during the short, cold days, and they take way too long to reach butcher size. Slack times in the bird business means cleaning the chicken house and butchering and freezing the remaining cockerels.



Eggs from kerosene

During my first winter without electricity, I had just about decided that it made no sense to keep more than a few hens. The nights were so long and cold that I hardly got any eggs for three months. This year, however, I decided to try using a kerosene lamp. I hung a barn-style lantern from a hook attached to a crossbeam. It is out of reach of the chickens and provides plenty of light for our small shed. The amount of kerosene I used each night was determined by how much supplemental light I needed at that time to give a minimum of 14 hours. During the longest nights, I used a cup of kerosene. I wasn't sure at first if the use of kerosene would be cost-effective, but it turned out to be a great success. We had eggs all winter, and except for the molting period, we always had some to sell. We buy kerosene in bulk for about \$1.75 a gallon, which is a real bargain for all the eggs we get.

Our temporary chicken house is sided with one-by's and has a metal roof. It's not tight and it's not insulated, so I think the hens did really well to maintain 80% production all winter. I feed whole grains, bone meal, kitchen scraps, and old produce from the health food store. I also try to break open the ice in their water every couple of hours during the day.

Year-round milk

Having a year-round goat's milk supply is important to me, although relying on the cheese I make when milk is abundant would be easier. Staggered breeding is the key. I keep records so that I know which does are most likely to breed early, and I get one of them bred as soon as possible. Then I breed one doe each month, saving my longest-producing doe for November breeding. Any doeling that

was kept from the previous spring is bred in December to give her plenty of time to attain good growth. In this way, I am never left with all dry does.

In addition, I usually have one older doe who produces prodigious quantities of milk and stays in good condition without being dried up at all. Nutrition is the key here. It is necessary to feed top quality alfalfa free choice, an adequate amount of goat chow, and a pasture block for any needed supplemental nutrition. Be sure to use a block suitable for goats.



It should contain no urea and is usually sold as a horse block or a "natural" cattle block. I think it does no harm to milk a grown doe all year under these conditions.

Many people breed a prolific milker only every other year. I like to have as many kids as possible for meat, for sale, and for replacement does, so I breed every year. Even so, some heavy milkers do not breed at all. It's the same as with nurse cows. Often the calves have to be removed before the cow will breed.

I've heard people say that they have such a hard time getting their heavy milkers to dry up at the proper time. If you have that "problem," just feed her up and keep milking. One of my does had no kids for three years and still gave a maximum of two gallons dur-

ing the spring and early summers and a minimum of one gallon during the winters. If your doe has kids on her, you need to milk her through the season. Don't wait until she weans them, because by then there will have already been a downturn in the cycle.

Be sure your breeding program is good so that you get the best-producing does you can. With staggered breeding and an occasional doe who milks year round, you'll never be without fresh milk.

Wild harvest

Part of my year-round harvest plan is to be aware of what grows wild where I live. I take advantage of the abundance in season and preserve some for other times. Fish, berries, and various greens can be foraged for dinner a good part of the year. I love to spend a couple of hours catching trout, then searching for edible mushrooms, greens, and wild onions to serve with it. I top this off by harvesting gooseberries to make a pie for dessert. That meal is appealing like no other to me. It is a harvest from the land and is there for the taking.

And speaking of wild things, don't forget herbs for tea and medicines. Yes, you have to learn what is what and what plant has what uses. Start small and learn five plants that are growing near you and are useful. Then build on that. I harvest and dry dozens of plants for medicinal use and have found them to be very effective. We use them especially for prevention, because we're rarely sick. If high blood pressure runs in your family, for example, there are many common herbs that can be made into a tea to drink every day so that maybe it won't happen to you. Besides that, you get the pleasure of picking something good for you and taking advantage of nature's bounty. I drink a tea of dandelion root, yarrow, and violet leaves. My husband drinks one of juniper

berries, prince's pine, and Oregon grape root. These are only a few of the herbs that grow right on my land. Look around and see what grows where you live.

Produce preservation

In planning the produce you will grow, consider first how you will be storing your harvest. Look through your seed catalogs to determine which varieties are better for which methods of preservation. For those of us who are entirely reliant on what we grow for our food, it is imperative to choose wisely. If it isn't tasty or the texture isn't good, it doesn't matter how much you harvested: no one will want to eat it. Here's an example: I canned two kinds of beets. One was absolutely delicious with no dressing-up at all. The other lost its flavor, color, and texture, and no matter how I tried to make them more palatable, they were yucky.

Another quality to look for is extra vitamin content. Some varieties have a naturally higher nutritional content, and your seed catalog will note that in the description. When all your food is home-produced, I think it's worthwhile to take that into consideration. And of course, be meticulous in your method of preservation. Beginners will probably not be totally successful the first time canning, but do pay attention to what you're doing and produce the very best product you can. Winter can seem very long when your harvest is poorly preserved and it's all you have to eat for months at a time.

For those who are just beginning at self-sufficiency, don't spend too much time on fun, exotic things. Grow what will sustain you and will almost certainly be successful. Zucchini, for example, is fun to eat in the summer and is almost always successful, but it doesn't contain a lot of nutrition and is hardly worth preserving. Winter squash, however, is packed with vitamins and will keep relatively easily in a cool place.

In my climate, growing tropical plants is impossible, and while they are certainly more glamorous than root crops, it is more worthwhile for me to cultivate carrots, beets, parsnips, rutabagas, and so on, than to spend time on tomatoes or eggplants. I can always trade for these with people in the valley.

Growing a garden for self-sufficiency is somewhat different than growing a supplemental or recreational garden. Your quantities will be greater, and you will want uniformity and reliability. I use Garden City seeds from Hamilton, Montana, and in the catalog there are "market farming" tips for many vegetables. I find these to be very helpful for my garden.

Be sure to choose varieties that are suitable for your climate. Most seeds off the grocery store rack will not be, unless you live in an ideal climate. Choose varieties that are vigorous and give real food production. In my climate, earliness is vital.

Seed saving allows you to plant seeds that are successful for your

micro-climate. If you choose to do that, be sure to buy open-pollinated seed. Growing food is difficult, especially in the north, so make it as easy on yourself as possible. There's nothing wrong with buying seeds, even hybrids, if you can afford to and if it makes producing food easier.

Keep your soil healthy with compost and biological controls. Your soil is your lifeline and must be treated as the living organism that it is. Nurture and pamper it, and you will be able to grow more bountiful crops than you ever thought possible.

I hope I have given you some ideas for your year-round harvest plans. Harvesting is more than canning or freezing. It is a year-long food design which incorporates every phase of production. Self-sufficiency is hard work, but it is such a thrill to be reliant on ourselves for our family's requirements. It puts us in touch with the earth to such an extent that it is a fulfillment in itself. Δ

A country moment



White pelicans on a serene mountain lake.

Make “recycled wine” from leftover fruit pulp

By Allyn Uptain

We're recycling-crazy around here. We recycle everything possible. Sometimes I hear the lunatic fringe of the environmental movement talking about our “doomed” planet. On other days I hear ultra-conservatives or libertarians talking about how the environmentalists are over the edge and we have enough raw materials to last until the end of time. It's hard to decipher the truth anymore, but we recycle anyway. It teaches discipline. It teaches us to make full use of what we have. I dislike the concept of waste and want to create as little waste as possible. It's also a good way to impress on my children that they should not be indiscriminate in their habits.

Now when I say “recycle,” I do indeed mean saving bottles, cans, and paper, and taking some of that to the recycling center. Since the recycling center is about 15 miles from our place, stopping by the recycling center is just an accepted part of our trips to the city. But mainly we recycle by re-using. Everyone knows how to use a grocery bag as a garbage can liner. That's the best kind of recycling.

One of my favorite things to recycle is leftover fruit pulp from making jelly. When we make jelly, we always end up with a bunch of fruit peelings or the leftover pulp from squeezing the juice out of some fruit. What can you do with that stuff? Well, you could always feed it to the farm animals, but we prefer to make wine with it.

When jelly season hits, we usually have peaches, wild berries, and plums ready at about the same time, so each year we end up making a few batches of “jelly wine.” It's different every year. One year we may have more peaches, the next year more berries. But it is always good. This is also a



good excuse for me to clean out any stored fruit we may have. Apples going bad? Throw them in the jelly wine. Same for oranges, grapes, or any fruit that looks like it's at or near the end of its storage life. Variety is definitely the spice of this wine.

Making wine is easy. Fill the largest sanitary container you have one-third full of fruit. If you don't have enough fruit, you can cheat by adding sugar. Add enough non-chlorinated water to fill the container to two-thirds full. Squash, stir, and mix until you think you have most of the juice out of the pulp. Add some good wine or champagne yeast. You can use bread yeast, but real wine yeast will make a much better product.

Cover the container so that nothing can get in, but excess gas can escape. A simple way to let the gas out is to attach one end of a plastic tube well

above the liquid level and the other end in a glass of water. Watch it bubble for a couple of weeks.

As carefully as you can, pour off the juice and leave the pulp behind. Clean your container. Pour the juice back in, cover it, and let it stand for another two to four weeks, with your “gas lock” setup still in place.

Now syphon the wine into bottles, leaving all the sediment in the fermentation container. You can take the plastic tube, attach one end to a small bowl, sink it in the wine, and then syphon right into your recycled juice and wine bottles. Just make sure the bottles and lids have been sterilized with boiling water or chlorine. (Rinse extremely well or wait 24 hours if you used bleach water.) Now all you have to do is wait six months or more before drinking your wine.

While you wait, you can feel good about yourself for all of the stuff you recycled. The pulp left over from the wine-making process we usually give to the chickens, but if you are really into medicinal alcohol, it also makes a good brew for a distiller. You will have to add lots of sugar, but you won't need any more fruit or yeast. You can, however, add any kind of leftover grain you might have lying around, as well as old honey or syrup. Δ

Talk to other self-reliant readers over the internet in the Reader s Forum at:

www.backwoodshome.com

Solve chinking woes with a mortar-sawdust mix

Robert L. Williams

In virtually any type of building there is always the problem of sealing cracks and crevices, and the most frequently used solution to the problem is to buy caulking or compound tubes and a gun with which to apply the sealer.

This solution works well with most smaller cracks, but if the opening is fairly large (wide enough for you to stick your fingers into the crack) caulk or sealing compound is not a practical manner of solving the difficulty. For one thing, the cost is prohibitive if there is much sealing to do. There are also locations where it is virtually impossible to use caulk from tubes. And if you use one of the foam sealers, you must then go back and cut away the excess that is left after the sealer expands.

Vinyl chinking

You can buy a vinyl chinking or sealer in five gallon cans (perhaps smaller). This sealer is excellent primarily because the vinyl basis for the compound allows for expansion or shrinkage in fluctuating temperatures, and the chinking never completely sets or hardens. Instead, it remains the consistency of hard rubber.

To use the vinyl chinking, you will need a wide-blade putty knife and a narrow-blade putty knife, a small trowel (of the flower garden variety), and a small container of water. When you open the containers you will find a compound that is the consistency of stiff and very smooth mortar. This substance will smell very much like bubble gum mixed with ammonia.

When you apply the compound to large openings, it is better if you can smooth it over the surface of wood that has been inserted into the cracks between logs or wide boards. If you

are chinking a log structure, and if the cracks are two inches wide, push lengths of 2-x-4 timbers into the opening and toe-nail the lumber in place. The outside edge of the filler lumber should come to within one-fourth inch of the horizontal surface of the logs or wide boards.

When you apply the chinking compound, use a putty knife and spread chinking one-fourth inch thick (no thicker) across the whole surface of the lumber. Feather the chinking upward and downward so that it is forced into the wood of the logs. When the basic work is finished (the application of the chinking) then use a clean putty knife dipped into water to smooth the compound. Work only in one direction, and leave the surface of the compound as smooth as finished concrete. In fact, it can be almost as smooth as wood.

Mortar-sawdust mix

The major problem with the vinyl chinking is expense. The chinking we used on one job cost \$10 per gallon, or \$50 for a five-gallon bucket. We found quickly that we would need 25 buckets of compound, which would have amounted to \$1,250 for the job.

There is, however, one method that answers nearly all of the problems of sealing and chinking. This is the mortar-sawdust mixture. It is inexpensive, can be used wherever there is room for a narrow-bladed putty knife or trowel, can be done rapidly, cleans up easily, and requires no expertise except for basic manual skills.

Here's how to go about chinking or sealing with the sawdust compound. First of all, you need to mix a batch of mortar. If the job is very small, buy a bag of pre-mixed mortar and simply add water and mix by hand. Use a hoe or shovel for good results.

If the job is large, you may want to buy your own mortar mix and add the sand (the fine aggregate) and water. For our needs we have always used creek sand or roadside sand. It does not matter if there are small pebbles in the mix; in fact, the larger sand granules and small pebbles actually help the mix by serving as a coarse aggregate.

When you plan to do the chinking work, choose a time when the weather is good; that is, don't try to work in sub-freezing weather or during a rainy season. (You can, however, work in ultra-cold weather if you add a little antifreeze to the mortar. If you do not, the mortar will freeze while you work.)

Mix either in a wheelbarrow or a mortar box. If you don't have a mortar box (for larger jobs) you can knock one together by using plywood or wide boards with straight edges, but it is much easier to pay the money to buy an inexpensive mixing box or to



The walls when chinking began. Notice how large the spaces were.

use the wheelbarrow. The advantage of using the wheelbarrow is that you can move the entire mortar supply as you change work locations.

A basic mixture of mortar is a one-to-three ratio of mortar mix to sand. That is, use three shovelfuls of sand for each shovelful of mortar. The problem with mortar is that if you must have a wide joint, the mortar tends to crack. That's where the sawdust enters the picture.

The best type of sawdust we have found is chips from chain saw projects. We try to do the majority of sawing in the same general location so that our sawdust is in a single heap rather than all over the farm. When we rip logs for boards, we use a primary saw station, and the result is that we have wheelbarrow loads of sawdust available at all times.

If you have a workshop, sweep up the sawdust after each work session and store it in a bag or bucket. Do not worry if the sawdust or chips are green with sap, and the least of your worries is whether the sawdust is wet. In fact, you want to have it not only wet but saturated before you use it.

Here's why. When you are laying bricks or blocks, you should sprinkle the bricks with water before you install them into a course of work. If you do not, the dryness of the bricks will pull the moisture from the mortar and leave it too dry. The result will be severe cracking or crumbling.

The same is true of wood and mortar. You do not want to wet your logs or boards, unless you can sprinkle them lightly, so put the water-bearing sawdust into the mix and the problem is solved. The tiny wood chips cannot draw moisture from the mortar because it is already saturated. There will therefore be no appreciable amount of cracking, crumbling, or other deterioration of the mortar.

Another superior point is that the sawdust or wood chips (the tiny chips, that is, no large ones) will extend the amount of mortar needed, and you

actually save a considerable amount of money by using the sawdust.

Now to the proportions of sawdust to the mortar mixture: for every shovelful of mortar mix, add 1.5 times as much sawdust. So if you use six shovelfuls of mortar mix, use nine shovelfuls of sawdust, in addition to the sand.

If you cannot get a wheelbarrow close to the work site, use a mortar board to hold your sawdust-mortar mixture. To make a mortarboard, stand two 2-x-4 lengths (two feet long, each) on edge and then nail plywood or wide boards across the 2-x-4s. The final product should be at least two feet wide and two feet long so that you can have a large amount of mix on hand. You will use too much time and energy if you need to make trip after trip to get small amounts of mortar.

If you use the sawdust-mortar mix, you will not need to worry about the filler strips between cracks. All you need to do is load up a full-size trowel (brick masonry trowel as opposed to block masonry trowel) with mortar and push the mixture into the cracks so tightly that the mixture is forced upward and into the pores of the wood. Do not try to fill cracks loosely.

If you find that you are shoving mortar out the other side of the crack, there are two ways to handle the problem. The first way, if you have a helper, is not only simple and easy but also very efficient. One of you should work on the outside, and the other on the inside, and both of you should be at the same point in the wall. Each of you can scoop up a trowel-full of sawdust mortar and at the same time both of you should push the mortar mixture into the same crack. The pressure formed by the two masses of mortar meeting inside the crack will force more mortar into the pores of the wood, creating a better bond.

Remember that when you lay bricks, one of the purposes of jointing the mortar in each course is not just for decoration but to push mortar into the pores in the blocks or other masonry materials. The same principles apply to wood and mortar.

A second way, which works well if you must work alone, is to find short lengths of board (five to six feet long) and lightly nail the boards to the logs or wall boards so that the new board will cover cracks for several feet. The board will keep you from pushing mortar out the other side of the wall. When you have completed a stretch of work, leave the boards in place for a



The building when the chinking was completed.

few minutes until the mortar had a chance to start to set. You must realize that setting up will not be complete for two to three days, so do not disturb the mortar-filled cracks for at least 48 hours.

Fill all the cracks that are covered on the other side by boards (you can use a sheet of plywood if you have one handy and get more coverage with less nailing time) and then move to the next work area and repeat the process. You can go back an hour to two hours later, unless the temperature is very hot, and use the back of a trowel to smooth the mortar. Dip the trowel in water and smooth as you would if you were finishing a small patch of cement or as if you were finishing the compounding of a joint.

For greater stability of the joints, you can go back to still-wet joints and push nails through the mortar at an acute angle until the point of the nail contacts wood. Drive the nail then until the head is even with the surface of the mortar. Use a punch to drive the nail until the head is covered.

Finally, when the mortar has set completely, if you see tiny strands of sawdust sticking out, use a sheet of sandpaper to brush the strands until

they disappear. Your chinking job will then be completed, and at a price that is amazingly low and with a speed that is remarkable and gratifying. Δ

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Sheet composting saves work

By John Fuchs

My work as a landscaper provides me with tons of grass clippings and leaves. I have utilized these materials to make compost piles. Last year, I decided to use some of these materials in a sheet composting experiment. The idea was to determine if I could save myself some of the back-breaking labor of building the compost pile, turning it, watering it, lugging it to the garden area, and then digging it into the soil to a depth of a foot or so.

In October, I spread a layer of leaves two inches thick over my garden area (primarily maple and sycamore leaves). The leaves had been partially shredded by my lawnmower. In order to hasten the decom-

position of the leaves, I added a leaf activator that combined alfalfa, kelp, cocoa meal, and lots of microorganisms. I had used the activator the previous two falls in my compost piles with good success.

After spreading the activator on the leaves, I added lime and shoveled on an inch or so of dirt over the leaves. I then gave the area a good soaking. I did nothing else until late April, when I set out to plant some broccoli and lettuce.

I was pleasantly surprised to see that the decomposition of the leaves was largely complete. I estimated that 80 to 90% of the volume had decomposed. I passed the rototiller over the garden patch and incorporated the residue into the soil. Since the leaf breakdown was not 100% complete, I

added a high-nitrogen fertilizer (28-3-3) that I use for lawns in the spring, as well as my usual 5-10-5. The extra nitrogen replaces the nitrogen that is "locked up" in the leaf decomposition process and released when the process is complete.

The results were excellent. Both my early crops (lettuce and broccoli) and my warm-weather crops (tomatoes, eggplants, peppers) produced heavily, and I saw no difference in yield from previous years when I had used traditionally composted material in the garden.

Undoubtedly, the years of adding traditionally composted matter had made my garden plot fertile, and, while I certainly would not discount the value of compost piles, sheet composting is a far less laborious way to incorporate organic matter into the soil. Δ

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Based on years of personal experience, here are 10 good tips for homeschooling your children

By Mary Jo Bratton

Are you considering homeschooling your children, but don't know where to start? The following 10 tips will help answer some of your questions.

• Read, read, read.

But don't read too many "This is the way to teach your child" books. You'll end up confused and convinced that you can't do it.

Instead, read a few "how-to" books and lots of books on world history, philosophy, religion, biology, psychology, literature, and other topics. If you don't know where to start, go to the library and look up all the children's books on the subject in which you're interested. The children's books will give you an overview, with easy-to-understand explanations that provide a base for more advanced learning.

• Relax: You're not having school-at-home; you're homeschooling.

Say the word "school" out loud. What's the scenario that comes to mind? Desks. Chalk dust. A U.S. flag in the corner. Teacher up front, lecturing to sleepy students. Lockers slamming. Bells ringing. Boring.

"School-at-home" is an image that needs to be ditched, in favor of "homeschooling." Rid yourself of the idea that having school means sitting at a desk in a stuffy room, taking notes for six hours a day while Mom lectures endlessly about history, biology, algebra, and French. When you homeschool, the emphasis is on "home." Sitting on the sofa while you do math problems, studying insect life under a dead log in the back yard, asking questions in the car on the way to the library, reading Western biographies instead of dry history textbooks, and writing papers about the novels of Agatha Christie or the Titanic or motorcycles, instead of "What I Did Last Summer." It is also playing with your

brothers and sisters at recess, and wearing what *you* like to wear, not what the group says is "in style."

• Tailor the program to fit your child's learning style.

What kinds of activities does your child enjoy most? Does she count with blocks, love fingerpaint and modeling clay, enjoy taking apart and putting together Legos or other building toys? Does he enjoy being read to or listening to cassette recordings of storybooks?

Or is she happiest curled up with a good book and silence all around?

People learn in all three ways:

kinesthetic (by touching and handling things), **auditory** (by listening), and **visual** (including reading). Of course,

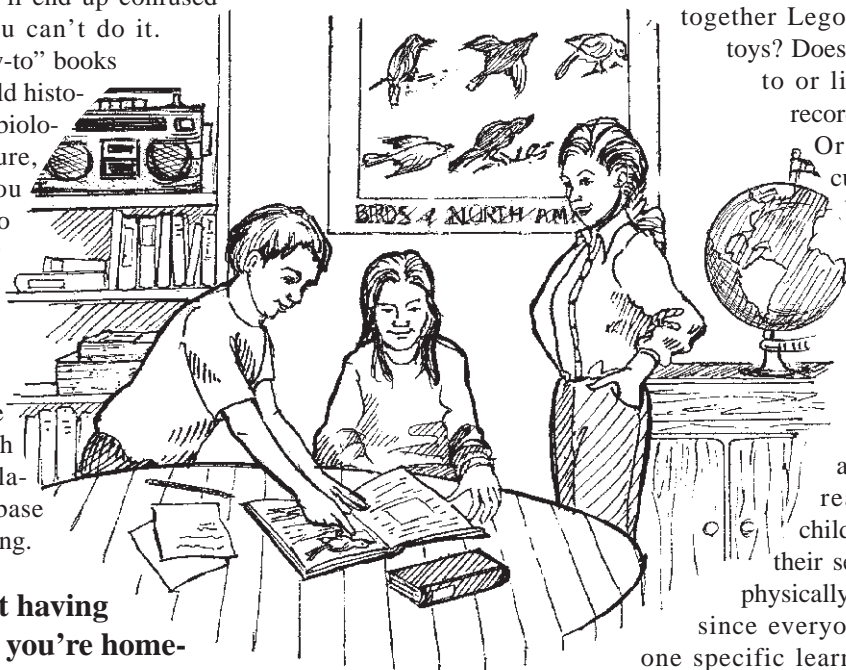
children learn through all their senses, unless they're physically disabled. However,

since everyone tends to lean to one specific learning style, you can increase your child's learning enjoyment by

adapting the curriculum to fit his style.

Materials good for **visual** learners are workbooks, flash cards, matching games, instruction books, and charts. Good materials for **auditory** learners are verbal explanations, cassette tapes and CDs (recorded books), educational songs and rhymes, and rhythm instruments (for music class). For **kinesthetic** learners, try nature walks, model kits, gardening, puzzles, and typing instead of writing (faster and less frustrating).

Using your child's learning style is especially helpful when you have to work through some of those sticky math problems. For a visual learner, try working out the problem on paper. An auditory learner may need only to have the problem read aloud. (My daughter asks for this help from time to time.) And a kinesthetic learner may need concrete objects (toothpicks, buttons) to stand in for the factors.



- **Try lots of stuff.**

How much would you pay for nine months at a private school? Probably \$3500 and up. You don't need to spend that much to teach your children at home, but you shouldn't skimp, either. Education is *at least* as important as the amount you spent on Christmas last year, or on a trip to Disney World, or on a new Magnavox 31-inch television with a built-in VCR. If you set aside a specified amount for home school supplies at the beginning of the school year, you'll feel freer to buy that set of art prints or those German language tapes than if you have to dip into the family budget.

Caution: Don't buy anything you can't return. Ideally, you should have your hands on the book or program before you pay for it. Ask yourself: Is this simple to use? Will this appeal to my kids? Does it appeal to me? (If it isn't simple and/or appealing, you'll use it for two or three weeks and then stash it in the closet, where it will haunt you forever.)

- **Write out your reasons for homeschooling and educational goals for each subject.**

Why do you want to teach your own children? Do you want to ensure their religious training, academic achievement, individuality, continuance of family/ethnic traditions? Are you simply crazy? (You will be asked this plenty of times, believe me.) When the rubber hits the road, you'll need to have written-out reasons for taking on this more-than-full-time job, so you can read them often. That way, you'll remember why you chose to keep your kids home when everyone else was merrily pushing theirs onto the big yellow school bus.

Educational goals should focus on outcomes. What do you want your child to be able to do as a result of having been taught this material?



Here are some of my goals for my two children:

- **Language arts:** Be able to use the fundamental skills of communication—reading, writing, spelling, and grammar—in a way that will enable them to function in our society (letters, conversation, job applications, essays, etc.).

- **Social studies:** Understand and be able to explain the major world systems (government, religious beliefs, culture) and how they developed (world history).

- **Religion:** Have respect and appreciation for human values and for the beliefs of others.

- **Science:** Understand and be able to explain the physical world as represented through basic knowledge of the sciences.

My list of educational goals also includes mathematical skills, perseverance, intellectual curiosity, physical and mental health fitness, and more. Your list of goals should cover those areas which are important to you and your family.

- **Sometimes it's not fun.**

Nothing is fun all the time. Going to work isn't always fun. (Sometimes it's never fun, but that's another article.) Running a household isn't always my idea of a good time. And sometimes

I'd rather dig in my garden than teach my kids.

Don't get me wrong. Life should be enjoyable and fulfilling. Unfortunately, sometimes you have to slog through the hard parts in order to make way for the good.

If you've done all you can to make grammar fun and the kids still gripe, explain that even though it's tough, an intelligent person must have a grasp of correct grammar. You can sweeten up the drudge with rewards along the way. For instance, I use index cards colorfully decorated with the words, "Coveted Candy Bar Card—Redeemable for one candy bar," to reward my kids for perfect papers. Or I give them something to look forward to, such as a "field trip" to an amusement park or campground after a particularly hard semester of schoolwork.

Face it, though. Some things are just not fun. They just have to be done. This is a lesson kids need to learn before they enter adulthood and have to write an annual report, cook dinner every evening, or stay up until 2 a.m. to meet a deadline.

- **Give it a year.**

One year of home education will not irrevocably harm your child, even if the only "schooling" you do is reading lots of books. (We're talking here about a literate family who gets out to the library now and then.) On the other hand, after a year, you should be able to tell if home education has been a success for you and your kids.

Be generous in your judgment of "success." Maybe your family has suffered a financial setback, death, illness, childbirth, or the like (in other words, normal life), and you've all had to pitch in to make it through tough times. In that case, "success" may mean a closer relationship between parents and children, and perhaps a talent discovered in carpentry, nursing, or clothing design. These family lessons are priceless and can only be taught at home, not in a public or private school setting.

- **Do unit studies.**

The beauty of a unit study is that the whole family can study a subject at the same time. You can take an arm-chair tour of a different European country every month, or follow the chronology of classical music throughout history. You may decide to take an in-depth look at Eastern religions for a semester. Or you can select a species of animal, research it, and then plan a field trip to its natural habitat. (See page 35: "A unit study on birds.")

In a unit study, each family member works to the limit of his ability. For an activity on a unit study covering the Revolutionary War, first graders may make a model of a hornbook with the alphabet and numbers printed on it. Ninth graders may reenact the signing of the Declaration of Independence.

You don't have to leave out the primary wage-earner when you do your unit study. Make posters charting the taxonomy of living things and hang them on the dining room walls. Plan an ethnically appropriate meal and have the kids cook and serve it. Watch a library video on Germany after dinner one evening.

Whatever you decide to do, set educational goals for your unit studies so specific skills are taught and assimilated. Give yourselves time to explore your chosen subject, and remember to keep it simple.

- **Give life skills equal status with academic skills.**

Driving a car. Planning and preparing a meal. Mowing the lawn. Reshingling the roof. Sewing kitchen curtains. Balancing the household budget. These are life skills and, while we may think they don't take a lot of brain power, life skills will most likely mean the difference between your child's future independence or her ineptness. It's extraordinary how

much we worry about whether our children are learning biology, but then neglect to teach them the correct way to paint a room or a house, how to iron a shirt, how to cut or trim hair, or how to fix the toaster. Instead, we do these things ourselves or pay others to do them for us.

Make a list of life skills you'd like your kids to know before they leave your tender care. Teaching these skills not only helps the family now, but ensures that your kids will be able to take care of themselves later.

*And the **number one tip** for home educators:*

- **Enjoy yourself.**

Did you study the subjects you wanted to learn during your educational career? More important, do you *remember* any of it? My three years of French have withered away to one feeble chorus of "La plume de ma tante." I have even less memory of my Algebra II class (except that the teacher pronounced the word "function" in a very interesting way). Now I'm learning German and taking guitar lessons. And algebra is more understandable without all the distractions I had in tenth grade.

Who says school is for kids only? Now's your chance to listen to all of J.S. Bach's works for organ, investigate the ecology of your part of the country, or read up on hot air balloons. There's no limit to what you

Kitten Surprise

*I was going to work—
Same trip,
Same scenery,
Five days a week.
But that morning
There's a dead kitten on the road
Where the 101 crosses over
Victoria.
Then another.
And another.
All the way to the Vineyard
Avenue underpass:
Dead kittens.*

*I got to the office.
"Why are you so quiet?" Jean
asked.
I told her about the kitten surprise.
She didn't want to believe me.*

*I don't blame her.
I've tried to forget
But, at night, I see
Some stranger's face
As he's riding down the 101;
He's got kittens,
Trusting him until the very last
second;
And at home there's a momma-cat,
Pregnant all over again.*

John Silveira
Ojai, CA

and your kids can learn when you have the freedom that home education brings. Δ

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website at:**

<http://www.backwoodshome.com>

A unit study on birds

By Mary Jo Bratton

Here is a suggested unit study you can use in homeschooling your children. You can use this simple format in other unit studies you develop.

From a study of local birds, your children can learn many basic facts about a variety of subjects, such as animal life, geography, climate, aerodynamics, and the use of a compass.

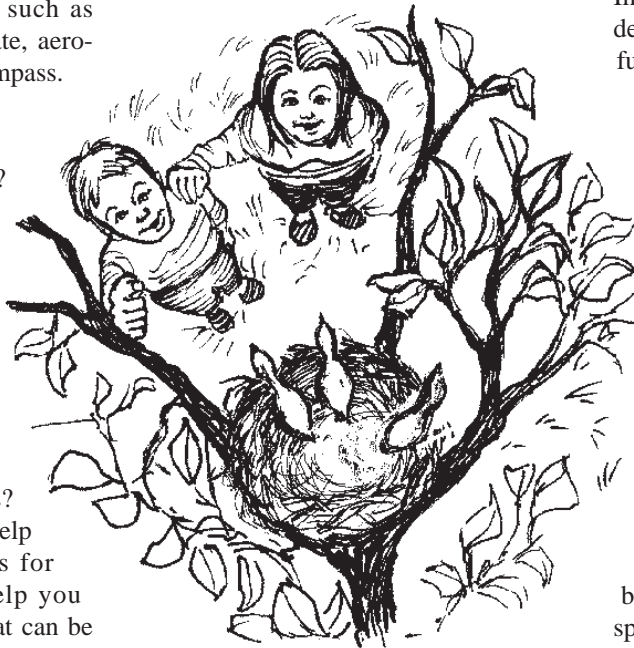
Investigation

What birds live in our area? How do birds get ready for winter? Which birds stay here in winter and how do they survive? Which birds leave and where do they go? Are any of our local birds harmful to people or animals? Which ones are helpful? Why doesn't a bird fall off a limb when it sleeps? Questions such as these will help you write educational goals for your unit study and will help you think of learning activities that can be done, such as the ones listed below.

Activities

- Make a list of all the birds the children can name from memory. Look these birds up in a field guide. If some of the birds named are from other parts of the world, find their homes on a globe or world map. You may wish to check with your county extension service or state natural resources department to find the names of native birds. Don't rush your children through this step. Take lots of time to talk it over and discover what they already know.

- Find pictures of as many birds on the list as possible. The list and pictures can be used for teaching how to alphabetize, as well as for identification purposes. For very young students, you can teach colors, counting, and spelling with these names and pictures.



- Talk about what may be the cause for bird migrations. Check out children's books on the subject at the library. Point out flocks of birds and note the time of year and the direction they're flying. Watch for newspaper and magazine articles on bird migrations.
- Mark on a world map the destinations of various migratory birds. Study about flyways and note the amazing distances that some birds travel in their seasonal migrations.
- Invite a bird-watcher to visit your home and share his interest and

information about birds. Or go to a local nature center for a bird-banding demonstration or a hike with a naturalist. People who love the outdoors usually love to share their knowledge with those who show an interest.

- Listen to tapes of bird calls. Imitate bird calls or try to describe them. This can be lots of fun, with the kids giving each bird call a different meaning. (Bedtime may become a little noisy at your house for a while, what with siblings sending messages via chirps and squawks.)
- Draw and color pictures of favorite birds. Ask, "Why is this bird your favorite?" "Because it's blue" is as good a reply as any.
- Keep a bird calendar. Record the last time certain birds are seen in the fall. In the spring, the same calendar can be used to record the return of migrating birds.
- When winter comes, set up bird feeders and research what seeds each type of local bird prefers. Study bird house design and build a few over the winter months. When spring comes, check your field guide to find out where certain species like to nest, and then mount the houses in similar places. You can continue your unit study throughout the year as you watch bird families choose dwellings, build nests, lay eggs, raise babies, and teach them to fly. Δ

Teach your kids math with the banking game

By Micki Warner

One of the tricks of successful education is the “exceptional teacher’s” ability to make the process fun. When a parent takes over the teacher’s job in the home, it is sometimes disastrous for both parent and student. The parent’s intentions are good, but the part that gets lost is the fun.

The banking game described here can provide the fun and also accomplish the following teaching objectives:

- Improving basic math.
- Instilling organizational skills and neatness.
- Learning real banking methods.
- Encouraging saving money.

Along with these benefits, the program provides an opportunity for positive parent-child interaction during the educational process.

To get started, you need the following materials: several unused checkbooks, some deposit and withdrawal slips, a little “white-out” on an old bank statement, and two large piggy banks with enlarged holes for “ease of transaction.”

At the ages of seven and ten, I introduced my children to the world of banking by opening the “Children’s Bank and Trust Company,” appointing myself Teller. Each child was given a stack of withdrawal slips, a new checkbook (with deposit slips), and a brand-new, simulated-leather checkbook cover. My only other contribution was a beginning balance of \$5.

It was explained to the children that the *initial deposit* belonged to them, but thereafter, each *transaction*, whether a *deposit* (put-in) or *withdrawal* (take-out), must be accomplished according to the rules of the bank. They practiced writing checks



for different amounts and developed the skill of writing numbers in long-hand. Addition and subtraction were used to complete the stubs, and instructions were given on how to deposit and withdraw money. Each time a child put money in the bank—or took some out—it was via a deposit or withdrawal slip. If they borrowed cash from other family members, we received a check, and the money was removed from the bank.

All transaction slips were kept inside the pig, and at the end of each month, there was an accounting. For this procedure, an old bank statement was used, by obliterating other transactions with white-out. We made photocopies of this blanked-out statement, and we used these sheets to tally up what the children had done. Following a real bank’s format, we carefully filled out the statement with deposits and withdrawals. Cancelled checks and deposit slips were balanced and checked with the stubs in their checkbooks. The children rarely balanced, but we always had fun hunting for and solving mistakes.

Because we were a “small and newly opened bank,” we had no interest (which might be excellent for older children). We also had no bank charges. The children thought this more than fair.

In the beginning, we had many “closed accounts” due to “insufficient funds,” and after a few months we included a stiff fine for bouncing checks (one dollar). This dollar went to the salary of the Teller. The entire process was kept simple, and in a short time, the children learned banking concepts, and their math skills were greatly improved. The children discovered the importance of neatness, since many mistakes were due to illegible numbers.

We kept up the game for many years. The children became “board members,” and they enacted and repealed many by-laws for their bank. Some worked, some were enough to bring in the FBI. Their savings grew as it became an embarrassment to “bounce a check.” When they began to demand interest, I turned them over to Alice, the teller at my *real* bank. Δ

Improve your poultry with selective breeding

By Jan Palmer

People don't usually think about poultry in terms of breeding—it's not taken seriously. People who wouldn't dream of inbreeding in other species take cockerels from the same hatchery (and probably the same genetic lines) to sire the next year's flock. Ducks and geese are not usually bred for specific traits, either.

Take a few minutes and think about what traits you want to preserve in your flock. Do you want the absolute largest bird? The one who is always out foraging for food, lays well, and is in good condition? The wild one that no predator can catch? The gander with such a good temperament that even the kids can be around him? The duck who lays exceptionally well? Do you want chickens for good laying ability and meat, but want to feed the meat birds differently from the start? Do you have rare breeds that you would like to preserve while selecting for your own selected traits? Each of these goals can take a different approach in selective breeding.

When selecting chicken breeders, look for cockerels that are at least six to eight months old (depending on breed) and pullets that have been laying for at least six weeks. Another option is using the older one- to two-year-old hens for breeders. This has a couple of advantages: if they've survived for over a year, they're disease-resistant and good layers (if they aren't, they should have been culled long ago).

Therefore, they have proven themselves as carriers of traits that you want to have in the flock.

Keep the breeders as stress-free as possible, and have a way to separate them. Having three cockerels or roosters in with a dozen hens will leave you with a pretty ragged bunch of hens, and you won't know which male sired the chicks. Separating your breeders also prevents excessive inbreeding.

Other management factors: When you purchase your initial batch of chicks, you should make sure that they are vaccinated for Marek's disease. Keep the birds healthy. Make

sure parasites are eliminated before setting to collect breeder eggs. Make sure the male is healthy and doesn't have too many hens to breed. A good rule of thumb is about a dozen hens per male. Give them room to move about. Make sure birds can comfortably reach into feeders.

Don't assume that layer rations are good for breeding: some have too little animal protein, vitamins, and minerals for embryos and vigorous hatching eggs. Look for a breeder ration (freshly mixed) or a game bird ration. If you can't find either, about six weeks before you plan to collect eggs for hatching, start supplementing your birds with a handful of dry cat food a few times a week, and add a vitamin/mineral supplement to their water supply.

Poultry must receive 14 hours of light daily for best production. Use lights with timers. Gather eggs twice a day, and handle eggs gently: jarring the eggs decreases the

chance of hatching. Wash your hands before collecting to minimize problems, and wash dirty eggs in water slightly warmer than the eggs.

If you are using a broody hen, make sure that she is reliable and won't abandon the eggs part way through incubation. Some people have had good luck with banty hens, Muscovy ducks, and some breeds of standard chickens. Orpingtons, Plymouth Rocks, Dominiques, and Sussex chickens all have members who are determined to be mothers. I had a Dominique hen a couple of years ago who had a few eggs in the

bottom of a bucket. I picked her up and pulled the eggs out because I needed to use the bucket. As soon as I set it down, she was back in it, nestling down. That's determination.

However, don't rely on breed alone. Khaki Campbell ducks aren't supposed to be good setters, yet I had one who was downright vicious about protecting the eggs under her. She'd hatch any kind of eggs and would defend the nest with wing attacks, hissing, and well-placed attacks at the hand, foot, or dog nose near her nest. (She was of excellent temperament when she wasn't nesting.)

Of course, you may wish to use an incubator and set up a brooder in the corner of the barn, garage, or storage shed. Δ



Barred Plymouth Rock cock selected as a breeder. He is of good size and temperament and is an active forager.

Here are some cucumber pickles to make at home

By Olivia Miller

Preserving produce by “pickling” is one of the oldest and most delightful ways to save your summer harvest for your winter table. The word “pickle” applies to any food preserved in brine and/ or vinegar, with or without bacterial fermentation, and with or without the addition of spices and sugar.

Foods pickled with *vinegar* are usually cooked before the vinegar is added. Because the food is cooked, no fermentation is required. This method is usually restricted to fruits, though some vegetables can be preserved in this way.

Foods pickled with *salt* are usually covered with a brine solution of the proper strength to allow fermentation to set in. The rate of fermentation is determined by the strength of the brine: the weaker the brine, the more rapidly fermentation takes place; the more concentrated the brine, the slower the fermentation. One recipe from an old-timer said to make a brine strong enough to float an egg (one pint of salt to one gallon of water) for her recipe for cucumber pickles.

Quick-process pickles, also called *fresh-pack*, use a salt-and-vinegar method that has a brief brining period before the vinegar is added. Sometimes fresh-packed pickles are canned in a spicy vinegar solution without brining. Whole cucumber dills and sweet gherkins are prepared by this method.

Helpful tips

Here are some helpful tips for making cucumber pickles:

- **Use pure salt** (99% sodium chloride) with no non-caking material or iodine added, for fermented pickles. Usually called “granulated salt,” “barrel salt,” or “meat curing salt,” it was once found at farm supply stores and speciality grocery stores, but now is available in most grocery stores in inexpensive 2½ lb. bags labeled “canning and pickling

salt.” Regular non-iodized table salt can be used for quick-method pickles.

- **The lime used for pickling is calcium hydroxide** (*air slaked* or *builder’s lime*). You’ll find it beside the pickling salt in your grocery section with the canning jars and lids.

- **Ground spices can darken pickles and relishes.** Many

recipes say to tie spices in a thin cloth bag and remove them before pickles are packed. Fresh spices give the best flavor. If dried herbs are used in substitution for fresh, use this ratio: 1 teaspoon dried = 1 tablespoon fresh. Spices and herbs lose their pungency in heat and humidity, so store them in airtight containers in a cool place.

Pickling spice, available at the grocery store, is made from ten to sixteen

spices. Or you can make your own with the following recipe:

Pickling spice:

2 tablespoons mustard seed
1 tablespoon whole allspice
2 teaspoons coriander seeds
2 teaspoons cloves
1 teaspoon of ground ginger
1 teaspoon dried hot red pepper flakes
1 bay leaf, crumbled
a 2-inch cinnamon stick, crushed fine

In a bowl combine all the spices. Keep the mixture in a tightly sealed jar in a cool dark place for six months. Makes ⅓ of a cup.

- **Dill is in season before cucumbers are ready for pickling.** Gather the dill, do not wash it, break heads off the stem



A display of cucumber pickles: icicles, bread-n-butters, sweet gherkins, cucumber relish, and crisp sweets.

and place heads in mason jars. Put on a cap and screw band tightly and freeze immediately.

- **The vinegar used in pickling needs to be a 4 to 6% acetic acid, 40 to 60 grain strength.** Check labels. Cider vinegar has a good flavor and aroma. Clear distilled vinegar is used for onion and cauliflower, because cider vinegar discolors, but for cucumber pickles this is not a problem. White distilled vinegar has a sharp, pungent acetic acid taste.

Vinegar has been around a long time, pre-dating the Old Testament (which mentions Ruth dipping a bit of bread into vinegar). The name comes from *vin aigre*, which is French for “sour wine,” and that is where it began. The bacteria *Acetobacter* sours the wine, dissipates the alcohol, and leaves a mixture of 4% acetic acid and water. Roman legions put wine vinegar into their drinking water to purify it. Vinegar was a by-product of wine makers and brewers until the 17th century, when the French separated vinegar making it into a separate industry. The English make malt vinegar from sour beer and ale. Americans make vinegar out of fermented apple juice.

- **Only fresh, firm, not-too-ripe cucumbers should be used for pickling.** Do not use waxed cucumbers, since the brine cannot penetrate wax. Cucumbers should be small or medium-sized. No more than 24 hours should elapse between picking cucumbers and placing them in brine. (If my harvest isn’t adequate and I must buy more produce, I get the process set up before I go to the farmers’ market to hunt for the right fruit, taking the farmer at his word that the cucumbers were harvested that morning.) Wash to remove dirt, blossom, and grit. Once in the brine, keep the cucumbers in a cool place; about 70° F is best. The fermentation process takes anywhere from a few days to several weeks, and is complete when bubbles stop coming up to the top of the container. Test for bubbles by tapping container on the side with your hand. Cut a cucumber: if it is the same color throughout and has no noticeable rings, fermentation is complete.

- **Hard water (that is, water with extra calcium salts) interferes with the brining process.** Purchase bottled water, or add 1/2 cup vinegar to a gallon of hard water.

- **For the brining process, use stone jars or crocks, unchipped enamelware, or glass containers.** Cover with a heavy plate or glass lid while brining. Use a filled jar of water to hold the cover down, so that vegetables are kept below the surface of brine. Pickles are soft and slippery if they’re exposed above the brine or if the brine is too weak. Slippery stuff also results from storing in too warm a place, or cooking too long or a too-high temperature when cooking.

When heating pickling liquids, use glass, unchipped enamelware, stainless steel, or aluminum utensils. **Don’t**



The right stuff for pickling: an unchipped crock, canning salt, vinegar, garlic, onion, sweet red peppers, fresh cucumbers, fresh dill, pickling spice, and jars and lids.

use copper, brass, galvanized, or iron utensils, as these metals will react with acids or salts and cause undesirable color changes in the pickles or form compounds which could be **poisonous**. Be attentive when timing the processing procedure. For fermented cucumbers and fresh-pack dills, start to count processing time as soon as the filled jars are placed in the boiling water. This keeps them from tasting cooked and losing their crispness.

To sterilize jars and glasses for pickling: Wash the jars in hot suds and rinse them in scalding water. Put the jars in a kettle and cover them with hot water. Bring the water to a boil, cover, and boil the jars 15 minutes from the time that steam emerges from the kettle. Turn off the heat and let the jars stand in the hot water. Just before they are to be filled, invert the jars onto a dish towel to dry. The jars should be filled while they are still hot. Sterilize the jar lids for five minutes, or according to manufacturer’s instructions.

Frightened? Don’t be. Cucumber pickles are successfully produced in ordinary kitchens every year. I stick to the simple, quick methods for most of my canning, enjoying the special tastes that cannot be purchased at the grocery store. My one exception to the “quick and easy” is a favorite recipe for dills:

Fermented dill pickles

50 to 60 smooth small cucumbers
1 ounce whole mixed spices
dill
1 pound pure salt
1 gallon water
1 pint cider vinegar



Author Olivia Miller takes bread-n-butter pickles from the water bath, placing the hot jars on a towel to let them cool before storing.

Place a layer of dill in the bottom of a clean, four-gallon crock. Add $\frac{1}{2}$ ounce whole mixed spices. Pack cucumbers to within three inches of top of crock. Then add another $\frac{1}{2}$ ounce whole mixed spices and a layer of dill.

Make a cold brine of the salt, water, and vinegar. Pour brine over cucumbers. Cover with a china plate. Weight plate down to keep cucumbers below surface of brine. Cover top of crock with cloth.

Remove any scum that forms on surface of liquid.

Just as soon as bubbling ceases and active fermentation stops, place pickles in standard canning jars. Pour brine over pickles, screw on lids firmly tight, and immerse in a kettle of tap-temperature water. Bring to a boil and boil for 15 minutes. When jars are cooling, you can tell when each one vacuum-seals, because the lid will click down into a little indentation. Store in a cool, dry, dark place.

A variation of this fermented pickle is this mustard recipe:

Fermented mustard pickles

50 to 60 smooth small cucumbers
1 gallon vinegar
 $\frac{1}{2}$ pound (16 tablespoons) dry mustard
1 cup salt

Wash cucumbers, pack into sterilized jars. Work the mustard into a paste using a little of the vinegar, then dissolve it in the rest of the vinegar. Pour cold solution over cucumbers to within a half inch of the jar top. Put on the cap, and screw the band firmly tight. When fermentation (bubbling) has stopped, process in boiling water bath 15 minutes. Makes three gallons. I prefer this method because the fermented

pickles are not moved into another container after the fermenting process.

There are many different kinds of pickles. Here are recipes for some of my favorites:

Fresh kosher style dill pickles

Kosher pickles are made in accordance with Jewish dietary laws. All ingredients are derived from vegetable matter only, and utensils used in the processing have not been in contact with meat products. I noticed the presence of garlic in all of my kosher cucumber pickle recipes. This is my favorite:

30 to 36 cucumbers (3-4 inches long)
3 cups vinegar
3 cups water
6 tablespoons salt
fresh or dried dill
 $\frac{1}{2}$ to 1 clove garlic, sliced
 $\frac{1}{2}$ teaspoon mustard seed

Wash cucumbers. Make a brine of the vinegar, water, and salt. Bring to a boil. Place a generous layer of dill, garlic, and mustard seed in the bottom of six pint jars. Pack the cucumbers in the jars. Fill the jars to within a half inch of the top with the boiling brine. Put lids on jars, screw bands firmly tight. Process 20 minutes in boiling water bath. Pickles will shrivel after processing, but will plump up in the sealed jars, so don't panic and open the jars. Yields six pints.

Bread-n-butter pickles

Bread-n-butter pickles are a delicious condiment that adds sparkle to sandwich meats and blackeyed peas. My young children mound bread-n-butter pickles on top of lima beans, and even ask for a second helping.

16 cups of cucumber, sliced $\frac{1}{4}$ inch thick (4 pounds)
6 cups of thinly sliced onions
 $\frac{1}{2}$ cup salt
5 cups sugar
5 cups cider vinegar
 $1\frac{1}{2}$ teaspoons turmeric
 $1\frac{1}{2}$ teaspoons celery seed
 $1\frac{1}{2}$ teaspoons mustard seed

In a large (seven-quart) kettle, mix cucumbers, onions and salt. Cover with cold water and three trays of ice cubes. Let stand three hours. Drain, rinse well, and drain again. Set aside. In another large kettle, mix sugar and remaining ingredients. Over high heat, heat to boiling. Reduce heat

and simmer uncovered 30 minutes, or until syrupy, stirring often. Get jars ready (wash and have hot), add cucumbers and onions to syrup over high heat, heat almost to boiling, stirring some, but don't boil. Ladle hot mixture into hot jars. Leave 1/2" head space. Wipe jar tops, put on rings and lids and process in boiling water 15 minutes. Cool. Makes six pints. For a Christmas variation, add two cups of sliced red sweet peppers.

Sweet gherkins

A *gherkin* is a variety of cucumber that bears small prickly fruit. The name also refers to the immature fruit of the common cucumber when pickled.

Use cucumbers no larger than two inches in length. Leave 1/4 inch or more of the stem on each. Wash and place in a crock. Add salt, using one cup of salt for each gallon of cucumbers. Pour boiling water over them and let them stand 24 to 36 hours. Remove the pickles from the brine and drop them into a solution of equal parts vinegar and water. Heat to the boiling point and remove pickles to sterilized jars. Add a teaspoon of mixed pickling spices to each quart, and also a fairly long strip of horseradish root. Add a cup of sugar per quart to the hot vinegar and water, and pour it over the pickles. Water bath 10 minutes.

Icicle pickles

"Icicle" pickle refers to the shape of the cucumber pieces, a lengthwise cut resulting in long slivers shaped like icicles. Cucumbers cut in this fashion can be dilled, sweetened, or fermented.

celery
pickling onions
1 quart cider vinegar
1/3 cup pickling salt
1 cup sugar

Cut large cucumbers into four to eight pieces lengthwise. Let stand in ice water eight hours or overnight. Pack into hot sterilized jars.

Fill the center of each jar with two pieces of celery and six pickling onions. Combine the vinegar, salt, and sugar. Heat to a boil. Fill jars and seal in water bath 10 minutes.

This is the basic recipe, and you make as much vinegar/sugar/salt solution as you need. I save unused portions in the refrigerator for the next day's pickles during canning season, or pour it over sliced cucumber, green bell pepper, and onion for a salad. The salad is best when chilled a few hours.

Start a collection of pickle recipes. Commercial canning jar companies produce recipe books with lots of tips. Δ

A BHM Staff Profile: Teri-Lynn Hook



Teri-Lynn Hook was the first person hired by *Backwoods Home Magazine* after the magazine moved to Gold Beach in Oregon. She is now the magazine's Office Manager, and she is in charge of the day to day operations of the office, customer satisfaction, and order fulfillment.

She has an extensive background in business, which is evident in her efficient overseeing of office functions and the quickness and accuracy with which orders are processed.

Teri's favorite pastime is reading fiction with a good cup of coffee in front of her living room window while looking out over the Pacific Ocean. She also loves the fog horn, seagulls, and sea lions, which are located around Gold Beach in abundance.

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Enrich your soil with cover crops

By Inez Castor

Use it or lose it. That expression did not originally refer to soil, but it could have. Nature improves soil by growing plants on it continuously. In the wild, good soil is never without a cover of vegetation. Something will grow there, so it may as well be something you choose.

If you don't intend to grow a winter garden, plant food for the soil. Cover crops are grown only to be returned to the soil, to feed and protect the soil. They improve fertility, prevent erosion, and provide sanctuary for beneficial creatures while interrupting disease and weed cycles.

Cover cropping is a technique first practiced by the Chinese over 3000 years ago. Only in recent decades have American gardeners discovered its benefits. Planted immediately after the ground is cleared, cover crops act as "holding tanks," taking up nutrients and keeping them near the soil surface. They also add organic matter to the soil and protect earthworms.

A good cover crop, often called a *green manure*, should be easy to start, form a thick growth, and be easy to turn under in the spring. It will save you time and money, improve your soil, and increase your yields.

Not all manure comes from animals. Manure is anything that, through its decay, introduces organic matter and nutrients into the soil in compensation for those removed by crops, livestock, and the elements. Green manure is as much a fertilizer as barnyard manure.



Hairy vetch

Types of cover crops: legumes and grasses

Cover crops come in two main types: *legumes* and *grasses*. **Legumes** include peas, beans, clover, and vetch. These crops are great producers, not only of organic matter, but that all-important soil nutrient, *nitrogen*.

Legume cover crops are actually "nitrogen factories," but they need help from a kind of bacteria called *rhizobia*. These bacteria form white nodules on the legume roots, into which they bring soil-borne nitrogen. This nitrogen is absolutely useless to the plants until the bacteria eat it. The by-product of this process is the form of nitrogen that plants can use. This is called *nitrogen fixation*.

Legume seed must be *inoculated* with the necessary bacteria before planting. If your soil is in good condition, it probably already contains the necessary bacteria, but it's a good idea

to inoculate the seeds anyway. The inoculants are inexpensive, easy to apply, completely organic, and will ensure that your legumes get all the nitrogen they can handle. Though there are several different types of inoculants, the type needed for the legume you choose will be available wherever you buy your seed. Inoculation is not a preventative, but a booster, like yeast. Seeds must be inoculated on the same day they're planted, or the bacteria will die.

Grasses are grain plants, including wheat, oats, barley, and rye. Although they don't produce nitrogen the way legumes do, grasses provide some nitrogen, as well as potassium, phosphorous, and trace elements as they break down. The main benefit of using grasses is that they create plenty of organic material that conditions the soil. They also make an especially efficient mulch.

All of the recommended green manures can be purchased in bulk much less expensively than the seed you buy in small packets. Seeds discussed in this article are available from these suppliers:

Territorial Seed Company
P.O. Box 157
Cottage Grove, OR 97424
541-942-9547

Bountiful Gardens Seeds
18001 Shafer Ranch Rd.
Willits, CA 95490
707-459-6410



Choosing

Choosing the proper winter cover crop depends on your soil and climate. I am familiar with the Northwest, so I'll use some of our sub-regions as examples.

In the coastal areas of northern California, Oregon, and Washington, where winter temperatures are moderate and the soil rarely freezes, fava beans, crimson clover, buckwheat, and annual rye work well.

In the Cascades and east of the mountains, where winters are colder, annual rye, winter wheat, and vetch are good choices. Vetch is the most cold-hardy of all green manures, and when mixed with a grain, such as rye, will give you the advantages of both the grains and legumes.

Be careful in your choice of cover crop. The easiest is always the best, and any crop that cannot be easily killed and turned under looks suspiciously like a weed. Annual grasses, such as rye, winter wheat, and barley work well, but perennial grasses can be hard to kill. And remember, where winters are mild (as on the coast), almost anything can become a perennial.

Annual rye grass is a good winter cover crop for both the mild-winter coastal areas west of the Cascades, and the colder areas to the east. It must be planted early in the colder areas so it can become well established before extreme weather sets in. In the coldest parts of eastern Washington and Oregon, rye should be planted by September 15.

In these coldest areas, rye will not make it through the winter, but the plant residue holds the soil and provides organic matter to be tilled under in the spring. In milder areas, rye can prevent heavy winter rains from eroding bare soil.

Bags labeled "Ryegrass" in your garden center are likely to be mixtures of annual and perennial rye. Look for labels that specify "Annual."



Crimson clover

Planting

While some experts maintain that soil preparation is unnecessary before sowing cover crops, a better, healthier stand can be obtained by prepping the soil just as you would for any other plants.

As soon after harvest as possible, remove all large plant residue, such as corn stalks. Till under small material and weeds, incorporating fertilizer or compost if the soil is depleted.

Broadcast the seed, and in the case of most of the legumes and grasses, just rake them in. If you want to use a rototiller, go over the soil quickly and shallowly, so that your seed isn't covered by more than an inch of soil.

In the case of clover, which wants a firm seedbed, press the seed in by tamping it down or using a light-weight roller. If you don't expect rain within 48 hours of planting, go ahead and water. A light mulch will keep the soil moist and improve germination.

Another option is to plant your cover crop between and among established vegetable crops during the last month of production. Simply broadcast a low-growing green manure among the vegetables to give it an early start. Once the vegetables are through producing, pull the residue and let the cover crop take over. This

is a good way to prevent post-harvest weeds from becoming established. Try planting clover among your corn stalks.

Timing is critical for green manures. It's important to let your crop get a good start before winter weather. Legumes should be planted six to eight weeks before the expected date of the first hard frost, and grasses should be in the ground four to six weeks before that date.

Varieties

Crimson clover is cold- and shade-tolerant, but it doesn't like acid soil. *Be very careful to get crimson clover rather than one of the perennials, such as red clover. These propagate through underground runners and can become a weed almost impossible to eradicate.* Crimson clover has beautiful, edible blossoms, but turn it under before it goes to seed. Seed production causes stems to become woody, taking longer to break down. This legume fixes nitrogen at a rate of one and a half pounds per 500 square feet. Plant four pounds per 500 square feet.

Fava beans: Banner is probably the best green manure fava. It is tolerant of cold to ten degrees and will survive temporarily water-logged soil. It can reach six feet, and provides an enormous amount of organic matter, as well as fixing nitrogen at a rate of one pound per 500 square feet. Sow it early in October, planting about five pounds of seed per 500 square feet. While the plants may be somewhat daunting in appearance, they are so brittle that they're easily tilled under. If you prefer, you can snap the stalks off and compost them separately, tilling in only the roots.

Vetch: While there are many vetches, wooly or hairy vetch is best, tolerating cold to zero degrees and growing well in poor soil. It fixes nitrogen at a whopping three and a half pounds per 500 square feet, and should be planted

at a rate of five pounds per 500 feet. Vetch is shade-tolerant, and probably the best all-round green manure.

Buckwheat: This is a fast-growing grain, going from sprout to full bloom in about six weeks. In mild-winter areas, it usually winters over, taking a few frosts, but dying out if the ground freezes. It breaks up the soil well and grows to a height of three feet. It will grow on soil of low fertility, rapidly forming a dense cover. This cover crop accumulates phosphorus, which is released back into the soil when the crop is turned under. It has the best amino acid composition of all the grains, and attracts beneficial insects, including bees. If you raise bees, you'll find buckwheat honey is rich and dark. The brittle roots and foliage till in easily. Plant at a rate of three pounds per 500 square feet.

Annual rye: Annual rye is widely adaptable and very hardy. Sow it in late summer to produce both grain and organic matter. It will put on some early growth, then rest until spring. Rapid spring growth will produce seed heads for harvest in less than two months, so you want to work it up early. Plant at a rate of two pounds per 500 square feet.

Winter wheat: Hard winter wheat is cold-hardy and creates an abundance of organic matter. It is not drought-tolerant, but will survive acid soil. Plant in early fall for erosion control. Be sure to turn it under before seed heads form and stalks get woody. Plant at a rate of five pounds per 500 square feet.

Grains in general have several liabilities. They can be tough and slow to decompose if they become too mature. Winter wheat tills in easiest, but *be sure to work in all grains early*, or you'll be facing an unplanned prairie.

Green manure roots spread deeply through the earth opening up tight soil. When the roots die, they become food for microbes and earthworms,



Hard wheat

whose work continues the process of soil improvement. Over the years, a tight, compact soil can be turned rich and soft simply by having plants growing on it at all times.

Continue adding compost and manure, but as soon as a food crop is finished, plant a cover crop. Their wide diversity of growing habits gives you a choice to fit your needs.

Combine the types

In many cases, a blend of grains and legumes may be your best plan. Together they provide both nitrogen fixation and organic matter. Seeded together, the fast-growing grain protects the dawdling legume so it can make a good stand. You might try vetch with winter wheat in colder areas, or crimson clover and buckwheat in mild-winter areas.

Young, succulent legumes and grains provide more nutrients, while older, tougher plants provide more organic matter. Always allow at least two weeks for decomposition before planting other crops. Three weeks is better if you have the time. The decomposition process binds nitrogen, so it will not be available to nurture plants and seeds until decomposition is complete. The warmer the weather, the faster the residues break down.

Green manure plants can also provide you with food while they're enriching the soil. You can allow a small patch to go to seed, then thresh the grains for sprouting, or grind them into flour.

While fresh fava beans are routinely available in European markets, the only way to get them here is to grow them yourself. Shell them like peas and try them in a soup that includes onions, garlic, and carrots.

Crimson clover's beautiful blossoms are attractive and tasty in salads, and it makes a sweet, healthful tea. *But be sure you have crimson clover: sweet clover is toxic.*

If we intend the soil to feed us, we must, in turn, feed it, and cover crops are a simple and economical way to nourish the soil. In spite of these beautiful days, winter is definitely on the way. Like you, your garden should be warmly covered before bad weather begins. Δ

Mice

Try to say something nice
About mice.

It's so hard to love them
When they rattle in the oven,
Just looking for food,
Yet souring our mood.

They scamper through the night,
Causing untold fright,
As they dash across the nose
Or shuffle over the toes
Of a sleeping canine,
Who reacts with a whine,
A howl, or a bark,
Shattering the dark.

Their style definitely encroaches
But they eat cockroaches.
Well, there's something nice
About mice.

Diane M. Calabrese
Columbia, MO

Here are some tasty ways to use those end-of-season green tomatoes

By Marjorie Burris

That gentle nip in the autumn air feels pleasant to your cheeks, but it also means that one more tomato season is about to come to an end. Although the *Old Farmer's Almanac* lists frost dates for most parts of the United States, it is quite candid and adds, "The possibility of frost occurring after the spring dates and before the fall dates is 50 percent." So at our house, when that time rolls around, we keep an ear to the radio for weather forecasts and an eye on the sky for cloud conditions. We want to protect those warm-weather-loving tomato vines as long as possible. We hate to give up those delicious vine-ripened tomatoes.

Tomato hay stacks

When we are convinced a light frost is imminent, we go into action. When we first transplant our tomatoes into the garden in the spring, we either stake them or set a cage over the plants. The method we use to lengthen the life of our vines in the fall involves the support of this stake or cage. First we pick all the small tomatoes that have no chance of ripening. Then we examine all the larger tomatoes and leave only those showing signs of having at least some blush of color. Next, we push old hay or straw up under and around and over each tomato plant, keeping the hay wrap loose and from three to four inches thick. Then we securely tie the wrap with twine around the tomato plant and its stake or cage. The stake or cage makes a good support for the "tomato hay stack." The tomato vines stay snug and warm under their cover, and the tomatoes will ripen without any more light. Later, when we pick the ripened tomatoes, we carefully part the hay without

pulling it loose, and pat it back into place until all the tomatoes are gone. Tomatoes protected in this manner ripen slowly until a very deep freeze hits, and best of all, they still have that wonderful vine-ripened taste.

The green ones

Now, about those other green tomatoes we picked before wrapping the vines. Once again, we sort the tomatoes, and we select the nicest large, full-grown ones to store.

We make sure the tomatoes are dry, then wrap them individually in newspaper. Some people don't like to use newsprint on food, even though most newspaper ink is now made from soy bean oil. If you don't like to use newsprint, inexpensive white paper napkins work just as well.

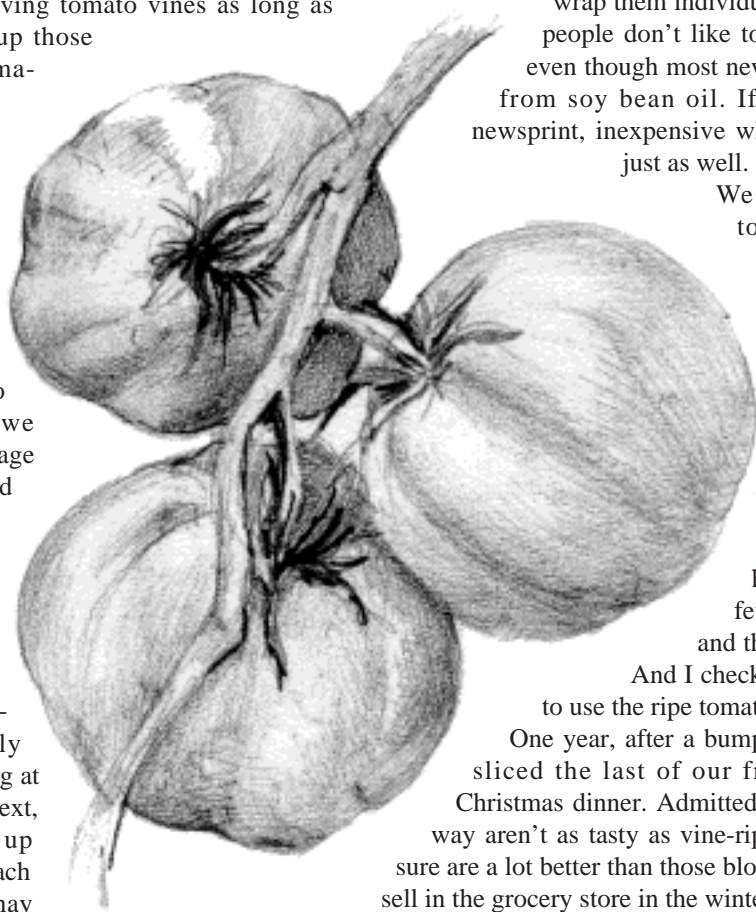
We store the wrapped tomatoes in shallow boxes or trays—no more than two deep—and set the trays in a place that does not freeze or get above about 65° F. Most green tomatoes will ripen in about four to six weeks if held at 55° to 65° with moderate humidity. To hasten ripening, I place a few unwrapped apples here and there among the tomatoes.

And I check them periodically, so as to use the ripe tomatoes before they spoil.

One year, after a bumper crop of tomatoes, we sliced the last of our fresh, red tomatoes for Christmas dinner. Admittedly, tomatoes ripened this way aren't as tasty as vine-ripened tomatoes, but they sure are a lot better than those blobs they call tomatoes and sell in the grocery store in the winter time.

Green tomato relish

Because all produce, including green tomatoes, should be freshly picked (meaning not more than 24 hours old) before starting the pickling or canning process, I immediately start processing the rest of our green tomatoes. One way to use a



large amount of green tomatoes is by making those good green tomato relishes. Most green tomato relish recipes tell you to chop the vegetables and let them set overnight in a salt solution. I can quickly chop the vegetables for relish and set them aside while I prepare more green tomatoes for other recipes. Here are our favorite green tomato relish recipes.

Piccalilli

1 quart chopped cabbage
1 quart chopped green tomatoes
2 sweet red peppers, chopped
2 sweet green peppers, chopped
2 large onions, chopped
1/4 cup salt
1 1/2 cups vinegar, 5% acidity
1 1/2 cups water
2 cups firmly packed brown sugar
1 teaspoon *each* mustard, turmeric, celery seed

Mix chopped vegetables with salt and let stand overnight. Next morning, line a colander with cheesecloth, pour vegetable mixture into colander, let drain, then bring edges of cheesecloth up over mixture and squeeze until all liquid possible is removed. Boil vinegar, water, sugar, and spices five minutes. Add vegetable mixture. Bring to a boil. Pour into sterilized jars to within a half inch of top. Put on cap. Process in boiling water bath five minutes. Yield: six pints.

Variation of Piccalilli: Use two quarts chopped green tomatoes instead of one quart cabbage and one quart green tomatoes. Also, two green sweet peppers can be substituted for the red peppers, but the relish won't be as pretty.

India relish

12 large green tomatoes
4 large sweet green peppers
4 large sweet red peppers
6 cucumbers (6 inches long)
2 large onions
6 Tablespoons salt
2 cups chopped cabbage
2 small hot peppers
2 1/2 cups sugar
3 cups vinegar, 5% acidity
1/2 teaspoon ground mace (or nutmeg)
1 teaspoon cinnamon
2 teaspoons ground ginger root
1 teaspoon turmeric
3 Tablespoons mustard seed
3 bay leaves

Remove seeds from peppers. Put peppers, tomatoes, cucumbers, and onions through food chopper, using coarse blade. Stir salt into vegetables. Let set overnight. Next morning, line a colander with cheesecloth, pour vegetable mixture into colander, let drain, then bring sides of cheesecloth up over mixture and squeeze until all liquid possible is removed. Chop cabbage very fine. Combine all the vegetables. Add sugar, vinegar, and spices. Mix well and heat to boiling. Boil three minutes. Pack into sterilized jars to within a half inch of top. Put on cap. Process in boiling water bath five minutes. Yield: eight pints.

Chow-chow

1 peck (12 1/2 pounds) green tomatoes
8 large onions
10 green bell peppers
3 Tablespoons pickling salt
6 hot peppers, seeded and chopped
1 quart vinegar, 5% acidity
1 Tablespoon ground cinnamon
1 Tablespoon ground allspice
1/4 teaspoon ground cloves
3 Tablespoons dry mustard
4 bay leaves
1 3/4 cups sugar
1/2 cup horseradish (optional)

Remove seeds from peppers and chop with the tomatoes and onions. Stir in salt and let stand overnight. Next morning, line a colander with cheesecloth, pour mixture into colander, and let drain. Bring edges of cloth up over mixture and squeeze to remove all liquid possible. Put in a large kettle. Tie the spices in a cheesecloth bag and add to the mixture along with the vinegar and sugar. Allow to boil slowly until tender, about 15 minutes. Add horseradish, return to boil. Remove spice bag. Pack into sterilized jars within a half inch of top. Put on cap. Process in boiling water bath five minutes. Yield: 10 or 11 pints.

Green tomato pickles

Next, I start making a few jars of green tomato pickles. Here are some good green tomato pickle recipes.

4 quarts thinly sliced green tomatoes
4 small onions, thinly sliced
4 green bell peppers, seeded, cut into strips
1/2 cup pickling salt
1 quart vinegar, 5% acidity
3/4 cup pickling salt
1 Tablespoon *each* black pepper, mustard seed, celery seed, cloves, allspice, and cinnamon

Sprinkle $\frac{1}{2}$ cup salt over vegetables, let set overnight. Next morning, drain well but do not squeeze dry. In a large kettle, mix vinegar, $\frac{3}{4}$ cup salt, and spices. Bring to boil. Add vegetables. Boil 20 minutes, pack into sterilized jars. Put on cap. Process in boiling water bath five minutes. Yields approximately eight pints.

Green tomato kosher dill pickles

Small, firm green tomatoes
Celery stalks
Sweet green peppers, cut into fourths
Garlic
1 quart vinegar, 5% acidity
2 quarts water
1 cup pickling salt
Dill

Pack tomatoes into sterilized quart jars. To each jar add one stalk celery, one green pepper, and a bud of garlic. Make a brine of the vinegar, water, and salt. Boil with the dill for five minutes. Pour hot brine over vegetables to within a half inch of top of the jar. Put on cap. Process in boiling water bath 15 minutes. This amount of liquid fills six quarts. These pickles will be ready for use in four to six weeks.

Green tomato sweet pickles

1 gallon green tomatoes (16 cups sliced)
 $\frac{1}{4}$ cup pickling salt
 $\frac{1}{2}$ Tablespoon powdered alum
3 cups vinegar, 5% acidity
1 cup water
4 cups sugar
1 Tablespoon mixed pickling spices
 $\frac{1}{2}$ teaspoon ground cinnamon
1 Tablespoon celery seed
 $\frac{1}{2}$ teaspoon ground allspice
1 Tablespoon mustard seed

Sprinkle salt over sliced tomatoes and allow to stand overnight. Next morning drain well, but do not squeeze dry. Mix alum with two quarts boiling water and pour over tomatoes. Let stand 20 minutes. Drain and cover with cold water, then drain well, rinsing alum away. Tie spices in a cheesecloth bag. Combine spices with vinegar and one cup of water. Add sugar and bring to a boil. Pour solution over tomatoes, let stand overnight. On the third morning bring the pickles and the solution to a boil. Remove spice bag. Pack into sterilized jars to within a half inch of top. Put on cap. Process in boiling water bath five minutes. Yield: eight pints.

Green tomato mincemeat

No season is complete without a little bit of green tomato mincemeat for pies.

3 quarts coarsely ground green tomatoes
3 quarts peeled, cored, coarsely ground apples
1 cup ground suet
1 pound seedless raisins
2 Tablespoons *each* grated orange and lemon rind
5 cups well-packed dark brown *or* raw sugar
 $\frac{3}{4}$ cup vinegar
 $\frac{1}{2}$ cup fresh lemon juice
 $\frac{1}{2}$ cup water
1 Tablespoon ground cinnamon
 $\frac{1}{4}$ teaspoon ground cloves
 $\frac{1}{4}$ teaspoon ground allspice
2 teaspoons salt

Combine all ingredients in large kettle, bring to boiling, stirring frequently. Reduce heat and simmer until dark and thick, about two and a half hours, stirring occasionally. Use a pad under kettle to help prevent scorching. Pour boiling hot into pint jars to within a half inch of top. Process in a boiling water bath 25 minutes. Makes eight pints, enough for 8 eight-inch pies. Pressure processing is not needed for this recipe because of the very long cooking time.

Green tomato mincemeat #2

6 pounds green tomatoes
6 pounds apples, cored and peeled
6 pounds raisins
1 pound suet
 $1\frac{1}{2}$ Tablespoons salt
6 teaspoons ground cinnamon
3 teaspoons ground cloves
3 teaspoons ground nutmeg
 $1\frac{1}{2}$ cups lemon juice
3 pounds brown sugar

Grind apples, tomatoes, and suet. Put into large kettle with other ingredients. Cook until dark and thick, about two and a half hours, stirring occasionally. Watch closely to prevent scorching. Pour into sterilized jars to within a half inch of top. Put on cap. Process in hot water bath 25 minutes. Yields seven quarts.

Fried green tomatoes

Fried green tomatoes are ambrosia. Yes, they are fried in fat. Yes, they have a lot of calories. Forget all that. Upon occasion, some things are to be enjoyed without thinking of fat and calories. This is one of those occasions.

Slice large green tomatoes about $\frac{1}{4}$ -inch thick. Let stand in salt water (one Tablespoon salt to one quart water) four hours to overnight. Drain well. Pat dry. Dip each slice in flour. Fry in hot fat, turning once until golden brown. Serve hot. For extra flavor, add two Tablespoons bacon drippings to fat for frying. This is a good side dish or a good meat substitute with eggs for breakfast.

Variation: Dip each slice of tomato in beaten egg, then into cornmeal. Fry in hot lard.

Variation: Oven fry. Coat bottom of baking dish with cooking oil. Heat in oven. Layer coated tomato slices one thickness in dish. Bake 350° F. until golden brown and soft, about 25 minutes.

The brine-dill jar

This is by far our favorite. I like this recipe because I don't have to can these pickles unless I want to. Usually after a couple of weeks, there is nothing left to can, anyway, because my family eats them up so fast. This recipe is adapted from the one given by the late Euell Gibbons, a nationally-known author and expert on wild foods. This is an imprecise recipe, and no two brine-dill jars are alike. You use what you have on hand or can forage. The only absolutely necessary things are onions, garlic, and dill, preferably fresh, but dried or frozen is all right.

Wash well and scald a gallon-size glass jar with a wide top. Pack a layer of dill in the bottom, add several cloves of garlic, then start layering vegetables into the jar, packing dill in between each layer. I put in several layers of small green tomatoes, about ping-pong ball size. Green cherry tomatoes are especially good. Use a layer of onions somewhere in the jar. If you don't have small boiling onions, slice larger onions. Peeled, sliced Jerusalem artichokes are good. Tender green or wax beans are good. (They are the only vegetables that must be cooked before adding to the jar. They have to be parboiled for about five minutes.) Cauliflower broken into small florets is great. Capers and a few red Tabasco peppers add a bit of dash. The white part of leeks and sweet peppers, either green or red, seeded and cut into strips, add interest.

But many times, I have used only the green tomatoes flavored with the dill, onions, and garlic.

Make a brine of $\frac{3}{4}$ of a cup of pickling salt to 10 cups of boiled and cooled water. Add $\frac{1}{4}$ cup cider vinegar of 5% acidity. Pour over vegetables in jar, insert a knife blade to remove air bubbles, then cover the top of the vegetables with more dill. Weigh down the top of the vegetables with something like a saucer weighted with a jar of water to keep everything below the brine, and let the jar cure at room temperature. Let the jar set about two weeks. Stand back when you open the jar: a stampeding family can be dangerous.

If you want to preserve these pickles, pack into hot, sterilized jars along with more dill. Strain the brine, bring to a boil, and pour over pickles. If you need more brine, use $\frac{1}{2}$ cup pickling salt, four cups of 5% vinegar, and one gallon of water, and bring to a boil. Seal. Process in boiling water bath 15 minutes, starting to count the time when the hot jars are placed in the actively boiling water.

Finally, after we've stored and pickled and canned all the green tomatoes we can possibly use—and stand to look at—we are quite happy to dump the rest into the compost pile. We've found that the tomatoes compost best if we layer them in the compost pile not more than one tomato deep and separate each layer with some leaves, straw, and animal manure. Otherwise, they just sit and sog.

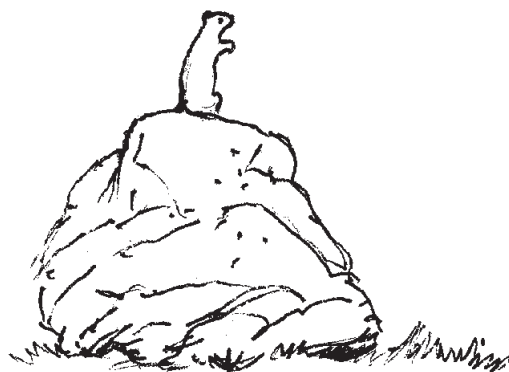
Ripe or green, tomatoes can be used in more ways than almost any other vegetable, which is one reason they have become the home gardener's favorite crop.

Making pickles: containers, salt, and vinegar

When making relishes and pickles or other acidic foods, use only glass, crockware, stainless steel, or graniteware containers. Acid foods react with aluminum ware, which should not be used to soak or cook those foods in.

Use only canning and pickling salt. Do not use table salt, either the plain or iodized type. Table salt contains fillers to keep it from caking, and those fillers react with pickling acids and spices, making the pickles dark, taste off-flavor, and sometimes spoil. Canning and pickling salt can be purchased at most grocery stores and is usually located beside the canning supplies or with the salt and spices. It can be purchased in two or five pound bags and will be clearly marked.

Vinegar used in pickling should be of 5% to 6% acidity. The strength of vinegar is usually shown on the label. If the vinegar is too weak, the pickles will spoil or become soft. Δ



Make grape juice the *easy* way

By Tanya Kelley

Squeezing and straining grapes for grape juice was not exactly my idea of fun. So when my neighbor showed me a faster, easier method, I was delighted. For anyone else tired of doing it the hard way, follow these steps for a delicious grape juice concentrate.

1. Wash and sterilize canning jars, lids, and rings. Fill water bath pan halfway with water to boil. At the same time, fill another pan with water to boil. This water will be added to the jars.
2. Wash grapes and remove stems and any damaged fruit.
3. Measure one cup of grapes and one cup of sugar for each quart jar.
4. Add sugar and grapes to jar. Don't bother mixing—it will mix when processing.
5. Fill the jar the rest of the way with boiling water. Leave $\frac{1}{2}$ inch headspace. Wipe jar top to clean. Screw on rings and lids fairly tight.



6. Place jars in water bath canner. Add boiling water to cover jars. Process 25 minutes.
7. Remove jars and place on rack or towel to cool. As you can see, the grapes may or may not float. Either way, the taste will be the same.
8. Serve in a pitcher with a strainer or drain juice off. Add $\frac{1}{2}$ to one jar of water to concentrate. (Taste to decide.) Δ

A country moment



Wesley Reynolds, age three, of Yreka, CA

(Note: If you have a country moment you'd like to share with our readers, please send it to us at Country Moment, *Backwoods Home Magazine*, P.O. Box 712, Gold Beach, OR 97444. Please include a self-addressed, stamped return envelope if you want the photo back.)

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Where I live

By Annie Duffy

Walking the woods with friends and family

I love to explore the area around my home, and hiking and trail riding are two of the best ways. When you hike you can go across difficult terrain like steep mountainsides. When you ride a horse, you can explore a wider distance and travel through water with ease.

My dad and I went on a hike not so long ago on the mountain opposite the lake from our house. Before we left we went out on our porch and used binoculars to search for a spot where we would try to go. We aimed for a large clearing between a dead oak and dead pine tree. We brought my dog, Lucy, and planned to stay out only an hour or so.

On our way up the steep mountain-side we were forced to go through large bunches of stickers that clung to our socks and pants. We got to the clearing we aimed for about an hour after we had started our hike, and spent about 10 minutes pulling stickers out of our socks and shoelaces.

Then we continued up the slope. In order to climb to the top, we had to cross over a bunch of rocks made up of an eroding lava flow that was hundreds of thousands of years old. Many of the rocks were about four feet across and we had to pick our way through them. Once we got by the rocks we were almost at the top, but then there was a cliff about 10 feet high made up of solid rock that we had to scale. We pushed the dog up first, because she didn't want to come back down if she couldn't make it. Dad went up first and gave me a hand.

The view from the top was spectacular, both of the lake and the opposite mountain above the lake. I was surprised how many more details of the

mountain I could see from up there, such as the many ridges and ravines that were not visible from below.

We were higher than all of the birds except for the turkey vultures circling overhead. Even the golden eagles, bald eagles, and osprey were below us.

Behind us the view wasn't that exciting, except for a glimpse of Soda Mountain, where the cellular phone tower is.

Standing within five feet of the edge of the cliff we felt a cool wind, but taking a step back it was still and hot. Dad said the wind on the edge may have been from cooler air falling and lower warmer air rising along the mountain cliff.

Several bands of wild horses wander the mesa, but we didn't see any today. Many people think that the horses are actually mustangs, but none of them

are pure. They are feral horses, which means they are descendants of domestic horses that have either escaped or have been turned loose. Some people capture and break them, but sometimes the horses can be dangerous. Ursula, my riding instructor, was on vacation when a feral stallion got in with her horses and killed her old mare, Balsam, while trying to mate with her.

We walked along the edge for about three-quarters of a mile before descending again near the office. Then we went to Gloria's store, which is the only store for about 30 miles, and had an ice cream.

Tomorrow, I'm going exploring in a different way—on horseback. Pat Ward of nearby Fall Creek Ranch has asked me to join a cattle roundup. It'll be my first cow chase and my first chance to show off my new horse Diego. I'll tell you about it next issue. Adios. Δ



VIEW FROM THE TOP—Grassy area on opposite shore is Goose Meadow, and farther left (out of the picture) is my house.

Keep fresh greens in your garden — even in the snow — by using row cover

By Lance and Jennifer Barker

The idea of having fresh greens a month or two later than usual won't sound like a very big deal to folks who have long growing seasons. Many of us, however, live in places that have long, cold winters that start somewhere around Thanksgiving and continue for four or five months. Anything we can do to get something fresh, green, and home-grown during those months sounds mighty good to us. Here are some techniques that allow us to harvest fresh, hardy greens outside for a month or two after the snow and temperatures have fallen. Combined with root-cellaring and a few herbs on the window sill, that is as good as having a growing garden for half the winter.

Our objective is to grow hardy greens to full size before low temperatures and light levels stop their growth for the winter. Then we protect them from freezing and snow damage in place as long as possible, until either the ground freezes, or snow smashes the plants. (If you live in a more moderate climate where neither of these happens, you may be able to keep your garden green all winter.) In cold places, the amount of freeze protection you get depends on the temperature of the soil when the weather turns icy. What we are doing is modifying the microclimate around the plants by using the soil as warm mass for as long as possible, even if the air temperature outside plunges to zero.

We have drawn our inspiration from the farmers of France, who have long used cloches, row covers, and poly tunnels to extend the growing season. Our technique is synthesized from several different ones and adapted to work best in our Zone 4 climate here



A boxed bed with a wood-and-wire frame keeps greens fresh well into snow season.

at Morning Hill, where the temperature usually reaches zero by Thanksgiving.

We call our protection technique *bunkering*. This consists of wrapping and blanketing the beds with polyester row cover until we have provided many degrees of freeze protection. Combined with growing frost-tolerant hardy greens, it allows us to eat fresh green salads and stir-fries while the snow piles up and temperatures fall outside.

Build boxed beds

The foundation of the protected greens bunker is the boxed bed. Boxing a bed allows you to attach hoops for supporting row cover, provides a good seal for the row cover at the edges to keep warmth in, and separates your walking paths from your growing areas. Unlike other boxed

beds, however, *these should not be raised above ground level* any more than absolutely necessary. The objective here is to keep the soil from freezing for as long as possible into the fall, so ground level is best for these beds.

Our favorite method of building these is to terrace them into a gentle slope. This has the two added advantages of allowing for good air drainage (cold air flows downhill instead of settling on the garden) and letting us work from the downhill side for less bending. Our three-by-seven-foot beds are a good size both for reaching across and for covering with available widths of row cover. They are also more resistant to being smashed by snow than wider beds would be.

We make the sides of our beds with 2x4 or 2x6 lumber, with a wider board at the uphill side to hold the dirt back. We don't have to use very wide

boards, because we are not trying to make raised beds. The soil inside the bed should be level with or below the ground outside, because it will stay warmer if it is not raised. The purpose of boxing is to define the worked and improved soil area, and to give the row cover a surface to seal against to keep the cold air out.

Then we make hoops of 9-gauge wire and push the ends into the ground to hold the row cover up off the plants. A wooden frame may be used to hold the arch of the wire up, if you live in a heavy snow area. Row cover may be attached to the box at one side of the bed with a *batten*, a narrow strip of wood applied to the outside and screwed through the row cover to the box. It is then pulled snug over the hoops, and all free edges are held to the ground with small rocks or boards.

In the warmer days of late summer and early fall, one layer over the hoops is sufficient to guard against the surprise freeze, but as the freezing nights become more severe, more layers are added. The first additional layer goes underneath the hoops, supported directly by the leaves of the plants themselves (this is called *floating*). Then more layers are added on top of the hoops, as well as inside over the floating cover. Row cover, which lets some light through even multiple layers, is the best choice for keeping plants long-term. If plants are covered away from the light for too long, they will lose their chlorophyll and turn yellow, just like grass under a board. Ugh.

Opening and harvesting the beds

Obviously, there comes a point when the vegetables must be harvested because you need them or because conditions are becoming too severe for them outdoors. Once the ground freezes, plants are not able to take up water and will just wilt if temperatures thaw again. At first, we try to harvest on a day when we are having a warm

spell and the row cover is not frozen to the ground. If we can do this without damaging the row cover, and the plants still look OK, we can just harvest what we need. Then we can re-close the bed, carefully pack snow back around it for insulation, and possibly store the remainder in place for another couple of weeks.

Another likely scenario, though, is that we will have to pry our way through the row cover even on a mild day. We sort through the greens and bag the best ones carefully for storage in our Sunfrost refrigerator (a 24-volt refrigerator which runs on our solar-electric system). Even greens which show freeze-damage may thaw in very good condition if they are put straight into the refrigerator where they will thaw slowly. Discard only wilted, broken, or rotten greens at first until you develop a feel for which ones will be OK when thawed.

If you have animals, the greens which are too smashed or freeze-damaged for use in the kitchen will make excellent supplements for their winter feed. Your favorite goat needs a taste of something green in the winter just as much as you do. Also, some of those vitamins will come back to you in your milk and eggs, so nothing is wasted.

Varieties to plant

Planting hardy, frost-tolerant varieties is the ultimate key to the successful growing of fall and winter greens. Plants that can tolerate frost can have some freeze-damage on parts of the plant and still be usable, while non-frost-tolerant plants will be flat on the ground the first frosty night.

Also, remember that as temperatures cool down, plants grow slower, so it is important to give your plants a good start before cold weather hits. We start ours in early August, because they will pretty much quit growing by the second week of October. It's not an easy time of year to get cool-weather plants started. Frequent misting of the

young plants is our key to giving them the start they need.

Here are descriptions of some of our favorite varieties for fall planting:

Swiss chard: This perennial hardy favorite is also a good one for crop rotating, since it's not a brassica or a lettuce. It's in the same family as beets, and produces a flavorful green that is good in salads or steamed. It comes in a rainbow of colors and a variety of leaf types. This is a long-season plant, so be aware of its time needs when you plan your planting. We start chard much earlier than pak choi and lettuces.

Lettuce: A classic salad favorite. Some varieties are more hardy than others. These are a few of our favorite hardy ones: **Red Sails** and **Red Grenoble** are tender, flavorful, moderately curly leaf lettuces with rosy-blushed leaves. **Sierra** is a tough performer in the coldest weather, as its name implies. It is a Batavian semi-heading lettuce with smooth, hearty, red-tinged leaves, a great sandwich green. **Batavia Laura** and **Victoria** are hearty-flavored green Batavians. **Black-seeded Simpson** is the classic sweet, tender green leaf lettuce and stands chills well. **Tim Peters' Open-heart** is a heartier, darker green leaf variety. **Red Salad Bowl**'s burgundy-colored oak-leaf shape brightens and varies the textures for visual appeal. **Celtuce** is not exactly a lettuce, but it adds significant amounts of vitamins to your salad, and a different texture with its celery-like central ribs and soft leaves.

Cilantro: If you have read that cilantro must be planted after all danger of frost has passed, you might think it's a tender herb. Don't worry, it's super-hardy. We have let cilantro go to seed in the garden, and when the seeds were ready to come up in the spring, they germinated and grew, frost or no. In the fall, it's as hardy as anything in our garden. Cilantro is considered one of the basic food

groups around our house, and we use it to flavor everything from Oriental salads to enchiladas. Two of us can eat a whole three-by-seven-foot bed of it. In fact, we haven't ever grown too much of it.

Mustards and pak choi: There are a zillion varieties of these, and we just grow a mixture of several that work well for us. Try **Tendergreen mustard** for a nice all-purpose green. If you have always thought mustards were too hot-flavored to taste good, just try growing them in cold weather to find out differently.

Since it's already garden season this year, don't wait till next year to try this out. If you've got more in your garden than you can eat (and what good gardener doesn't?), try this on any hardy greens, just to see how it works. Start small and get better at it every year. Try something different from what we have listed. We certainly haven't exhausted the possibilities for this technique.

Polyester row cover

Polyester row cover is a lightweight, spun-bonded plant protection fabric. It comes in several different weights and widths for different uses. Its uses include sun, wind, and temperature protection, as well as insect protection. We use it extensively in our garden, because we live in a place where it can and does frost all year round. We've had people say that our climate can't be as tough as where they live, because we have a garden and they can't. We just smile. Our secret is row cover.

Row cover is used by commercial growers to start tender plants in the early growing season, protecting them against a surprise chilly night. What we are doing with it in the application mentioned in this article is to moderate extreme cold for frost-tolerant plants. However, row cover is an extremely useful tool, and we have

found many places for it in our gardening.

We use it on almost everything in our garden. It floats over strawberry plants to keep frost off the blossoms and birds off the berries. (We remove it on sunny days so bees can do their pollinating duties.) It floats over potato plants to protect them from frost, because if the tops are frosted back, the plant puts its energy into regrowing them, and you get very small potatoes. Ours grow large and beautiful. We put it on hoops over tender green plants whose leaves we will eat, like lettuce and salad greens. And we use it to start hardy Oriental greens which can stand in the open later in the season.

If you want to try a small amount of row cover, just to see what it's like, you can buy the popular brand Reemay in smaller pieces at garden supply stores. Later, if you find this to be as handy as we do, you will want to buy large rolls of commercial quality row cover. The commercial type lasts longer and is much cheaper when bought by the bolt. Some people say commercial varieties are more abrasive to plant leaves than Reemay, but we haven't found that to be true.

But isn't polyester row cover a petroleum product? Yes it is. And using it is also creating solid waste. However, under some conditions, the choice is between using row cover and buying our food in the grocery store, because we couldn't grow much without the product. Grocery store food is grown by creating a huge amount of solid waste. Just because you don't see it doesn't mean it's not there. When you become familiar with commercial agricultural practices, using row cover will seem a small price to pay to have your own home-grown food available out of season.

We mitigate the amount of solid waste we create by having a "use hierarchy." New row cover gets used where an unbroken covering is important. As the covers develop a few small holes, we use them on harder

stuff, and when they become tattered, we rotate them to use as underneath covers. Finally, they are only good for providing winter protection for things like strawberry plants and spinach, which seem to produce better in summer if they have been covered in winter. We can use several layers for this, so it doesn't matter if one is full of holes.

If you have cats, as we do, they may try to get on the soft, white covers. Keep them from damaging both your row cover and your plants by grinding black pepper over the covers. We don't know why, but this works.

Finally, we must consider irrigation. The manufacturers say that water will go through row cover, but in our dry climate that doesn't work efficiently. Perhaps rain will go through, but we don't get any in summer, so we can't say. Taking the covers off to water is cumbersome and adds wear and tear, so we provide drip irrigation under the covers. Foggers, mini-sprinklers, and drip all work more efficiently when row cover slows evaporation and increases humidity around the plants. Each type of plant gets the watering treatment it needs, and watering is as easy as turning a valve. We only have to take off the covers for weeding, inspection, and harvest.

Row cover sources

Zimmerman Irrigation
RD 3, Box 186
Mifflinburg, PA 17844-9534

Peaceful Valley Farm Supply
PO Box 2209
Grass Valley, CA 95945
916/272-4769 Δ

I don't like work—but I like what is in work—the chance to find yourself. Your own reality—for yourself, not for others—what no other man can ever know.

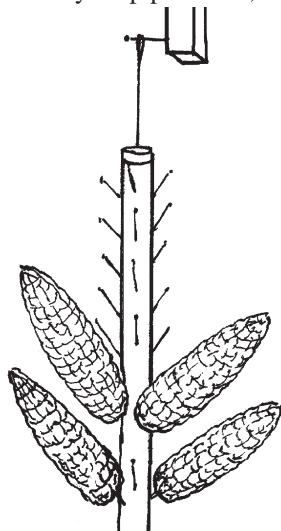
—Joseph Conrad
1857-1924

Traditional ways of keeping your corn crop and seed corn are still very effective

By Rev. J.D. Hooker

Corn . . . it's *the* traditional American crop. It doesn't matter whether the crop you'll be bringing in is intended for feeding your livestock through the winter, producing home baked cornbread and muffins, providing many quiet evenings' worth of popcorn, or any other homestead uses. This particular crop has been one of the mainstays of agriculture throughout all of our nation's history. In fact, until the 1990s, no other crop ever surpassed corn as America's number one cash crop. (And even then, corn was only surpassed by a bumper crop of an illegal drug.) When our forefathers (and foremothers) prayed, "Give us this day our daily bread," they were referring, almost without exception, to cornbread. Most of our early explorers and settlers never even tasted any other type of bread in their entire lifetimes.

Cornsilk was used as a tobacco extender or substitute; the cobs were used not only as pipe bowls, but as a

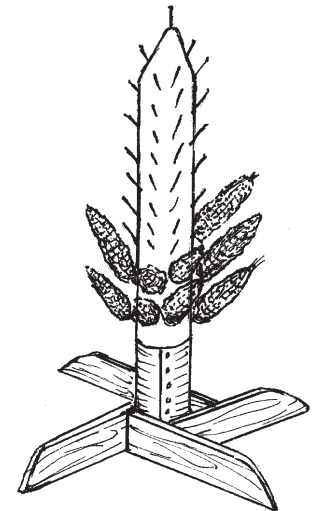


Corn-stick

heating fuel, for smoking meat (delicious), as easily replaceable file handles, jug stoppers, and many other simple but ingenious uses. The husks were stuffed into mattresses, braided into mats (and into sandal soles in the Southwest), fashioned into dolls and decoys, and used as livestock bedding. While the stalks were primarily used as cattle fodder and bedding, at times they were used as building materials. At one point during the Civil War, a train trestle was even built from nothing other than corn stalks, and it did hold up—for one train. Even the leaves were regularly employed as roof thatchings. While I would strongly recommend stopping short of the train trestle, there doesn't appear to be any reason for these "waste" products not to be used in similar ways today.

Of course, all the corn grown in early America was of open-pollinated varieties (with the exception of a very few hybrids developed among the Miami and Cherokee). Our frugal ancestors would never have been so foolish or extravagant as to keep purchasing fresh seed every year when they could so easily provide their own seed. No doubt these early Americans would be mightily impressed by much of our modern farming equipment, but I feel certain they would be appalled by most of our modern farming practices.

Maybe it's time that a whole lot of us—and especially us smaller-scale farmers and larger-scale gardeners—took a really hard look at the farming systems developed by our ingenious and independent-minded ancestors. Not only are most of their methods for producing this uniquely American crop well worthy of revival, but the simple processes they utilized for preserving their crop until their next har-



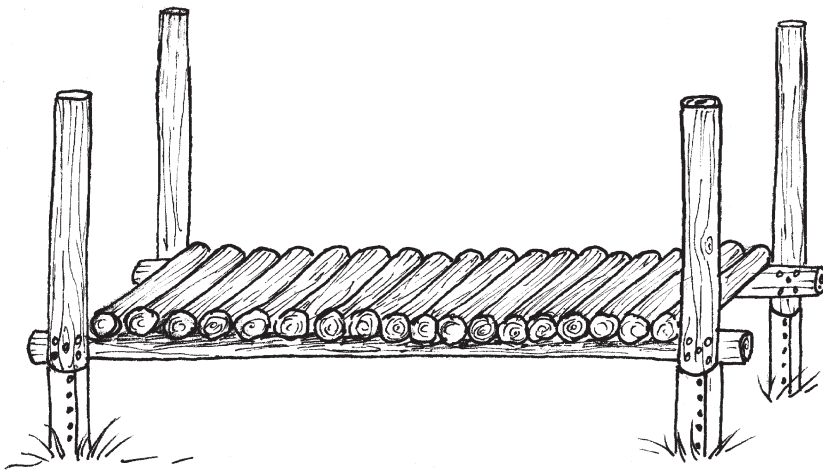
Corn-tree

vest, and their seed-saving methods as well, can be just as valuable now as they were during the 1700s.

Saving seed

When it came to preserving their own seed stocks, not only our Old World ancestors, but the Indian farmers of that day (I've met very few "Native Americans" who don't refer to themselves as "Indians"), were mighty selective. Only the very best, earliest maturing, largest, most well-filled-out ears were kept for seed. Other desired traits were watched for as well, including color (usually based on personal preference), stalk and leaf size, tassel size (for pollination), etc.

Sometimes, the ears with the husks pulled back were fashioned into long, colorful braids and hung from the rafters to preserve seed for the next spring. While this was, and still is, quite colorful and decorative, it isn't really very practical. Not only would most of these braids eventually work loose and fall well before springtime, but that method left the valuable seed



Corn crib posts and floor. For posts, use rot-resistant wood, such as catalpa, cedar, or redwood (4" minimum diameter). Post holes should be dug to below frost line. Fill holes with rocks or concrete.

supply vulnerable to rodents, squirrels, and other scavengers. The loss of even a single year's seed stock was not a minor problem, but a real life-and-death catastrophe in those early years. Therefore, safer storage systems were developed, or adapted from the practices of Indian neighbors.

Corn-stick and corn-tree

Two closely-related seed storage systems were almost universally adopted: the *corn-stick* and the *corn-tree*. Both methods work so well that they are still in use today among many people who grow open-pollinated seed varieties.

The corn-stick is just a long, peeled sapling pole, studded with finish-type nails. One husked ear is shoved onto each nail, and the "stick" is then hung from the rafters with a piece of heavy wire. Baling wire and coat hanger wire both work very well. Corn-sticks can vary considerably in length, as they need to be long enough to reach the overhead support, yet not so long that you can hit your head while walking under them. Of course, nails and wire were in pretty short supply among our ancestors, so the stick was generally bent like a shepherd's crook at the top end, with pegs substituted for nails. That works just as well,

should any of us ever be faced with a similar shortage.

Likewise, corn-trees work just as well now as they used to. Modern tools and materials make this a really easy project to put together. Many of the corn-trees that I've seen in use around here were fashioned from standard 4x4 lumber, chamfered to an octagonal shape. However, round posts seem almost as popular, and they're easier to fashion, and probably more traditional as well.

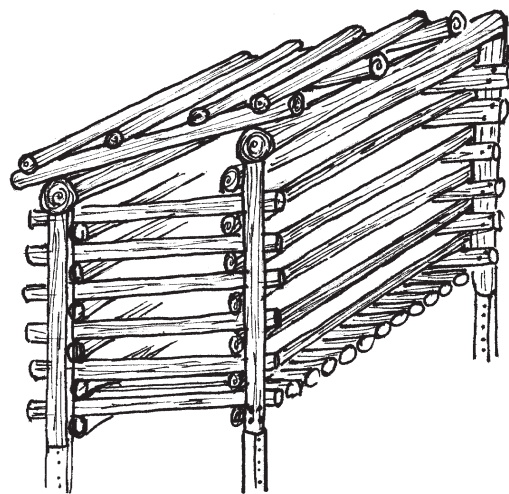
Four boards are nailed to the base of the post (as shown) to form the feet

which will hold the corn-tree upright. The top of the post is then trimmed to a blunt point, and the post is studded with finishing nails for holding the ears. To prevent rodent damage, most of the corn-trees I've seen in use had the bottom 18" or so of the post wrapped with thin sheet metal, usually inexpensive aluminum roof flashing.

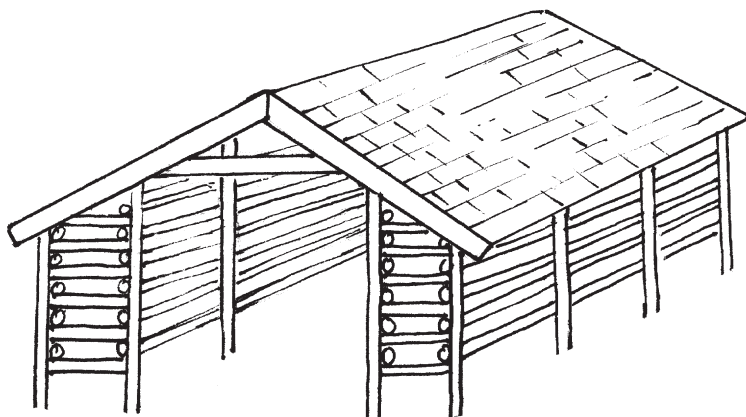
Corn-sticks seem preferable when storing your seed supply in a high-ceilinged structure, like a barn, while corn-trees seem better suited for use in lower-roofed buildings like storage sheds. One or the other (or maybe both) of these traditional seed corn storage appliances should work well for you.

How much seed?

Here is a tip you might be able to use when figuring your seed corn requirements. It's just a general guideline, but it usually proves to be mighty close to correct with most corn varieties. Generally, the seed saved from a plot of any given size is sufficient to re-plant an area equal to 75 times the size of the original plot. For example, if you were to save every ear from a 10' x 10' corn plot, you would have enough seed to put in a 75' x 100' area the next season. Saving all of the ears from a one-acre field would allow for



Framework for a simple corn crib. Wall poles are approximately 2" in diameter. Finish with waterproof roofing. Peel back husks before storing corn ears in crib.



A roofed-over area between two corn cribs makes a good parking, storage, or work area.

the planting of a 75-acre field the following spring.

The corn crib

If you are producing a sizable corn crop, whether for flour, corn meal, livestock feed, or whatever, you'll need a reliable method for storing this grain until it's used. Once again, our pioneering ancestors left us a pretty simple and reliable method for doing this. They adopted this storage method pretty much unchanged from their native neighbors.

You can see from the illustrations that a simple corn crib is easy to build. There are, however, a few things you'll need to keep in mind. First of all, if you were to build your corn crib any more than four feet wide, you'd lose most of your corn. Any wider, and you can't be certain of getting sufficient air circulation to wick away moisture from the innermost ears. If you space the support posts more than six feet apart, then the poles you'll be using for the sides of the crib will usually end up bowing outwards, allowing many ears to spill out. Also, if your area gets high winds, you won't want to build much over ten feet tall, and you'll want one of the narrow ends facing into the prevailing wind.

Before you begin, figure out how large a corn crib you'll require. This depends upon how much corn you use

in a year's time; once you know that amount, the rest is simple. For each bushel of ear corn, you'll require 1.86 cubic feet of storage. For example, if you use five bushels of corn per day, which equals 1,825 bushels per year, you'd require 3,394¹/₂ cubic feet of space, which would equal a corn crib 4' wide, 10' tall, and 85' long. Of course, in most cases, building four corn cribs, each 22' long, would work out much better.

We use an awful lot of corn, some in cooking and baking, but most as stock feed. What we finally ended up with are two sets of 40' long corn cribs. Each 10' tall set has two cribs spaced 16' apart. We extended the roofs of these cribs, so that they cover the area in between them, providing some tremendously useful parking, storage, and working space.

Generally, you'll want to leave the poles used to fashion the sides of the corn crib unfastened at one of the narrow ends. As the corn goes down in the crib, easy access is always provided by simply pulling out some of the peeled saplings. And many folks install the floor so that it slopes towards the front of the crib, so it's almost self-emptying.

While it's traditional to install a thatched roof fashioned from corn leaves, any sort of roof would work out just as well.

If you build the floor at least 18" above the ground, and encase the bottom 18" of each support post with light-gauge sheet metal, you'll have a rodent-proofed corn crib. And that leaves plenty of hunting space underneath for your cats to make some real inroads in any rodent population already on your property. (I strongly recommend good cats, from reliable, hard-hunting, barn cat stock, for rodent control. I *never* recommend poison.)

A variation

In building his own corn crib, a friend of mine has added some ideas that you might wish to consider. First off, he utilized used telephone poles as the support posts for his structure. Next, he added a barn-like loft over his two 40' corn cribs with a set of swinging barn doors at each end. Also, he replaced the poles normally used to fashion the sides of the cribs with welded wire fencing, as he felt he'd use up too much time collecting and peeling saplings. The floor of each crib is about 18" above the ground, and he closed it in with chicken wire, to keep out any animals, wild or domestic. Essentially what he's ended up with is a barn, complete with hayloft, built with corn crib sides. This design goes beyond the boundaries of a "simple" project, but it gives you an idea of how far you could go in building a corn crib, if your situation warrants such a major undertaking.

Anyway, there you have it: simple, time-tested methods for storing both seed corn and feed corn from one season to the next, without any of the muss and fuss of modern high-technology storage systems. Whatever your needs, building expertise, or available materials, I'm sure you'll find at least one of these valuable, functional, old-fashioned designs perfectly suited to your circumstances. Δ

Use plastic to get a head start on corn in the fall

By Mark and Lynn Klammer

As spring approaches each year, we can hardly wait for the feel of warm earth between our fingers. And so, while most avid gardeners let Mother Nature ready the soil for planting, we have devised a simple and inexpensive way to plant our garden outdoors just after the frost has left the ground. Our method, which uses sheets of clear plastic to warm the cold soil, suits plants that do not thrive indoors or transplant well. It allows us to get an early harvest from our favorite sweet corn, but it can also be adapted to coddle other plants, such as squash or sweet potatoes, that thrive under greenhouse-like conditions.

Begin in the fall by fashioning a seedbed consisting of foot-wide, six-to-ten-inch-high ridges of soil running in an east-west line. Space them as you want your corn rows spaced. (You *can* do this in the spring, but if your garden is poorly drained, you may find yourself in a bit of a mess.) As soon as the frost is out of the ground in the spring, spread a 10-by-25-foot roll of clear 4-mil plastic sheeting, available at any hardware store, over the planting area, laying it directly on the soil. Anchor the edges of the plastic with boards or stones or anything that will keep it from blowing away, including old croquet hoops or tent pegs.

After a few days (or longer, depending on the weather), when the earth under the plastic is warm to the touch, peel back the cover and plant the corn seeds halfway down the south face of each ridge. Then reposition the plastic, secure it, and begin a period of watchful waiting. The ridges are impor-

tant: they support the plastic until the seedlings grow, promote good drainage, and serve as heat reservoirs, gathering solar energy during the day and slowly releasing it inside the plastic at night. This technique, in almost any garden except one with a significant slope to the north, ensures that even when the temperature during a cold snap drops to a few degrees below freezing at night, the area under the plastic will not freeze. And despite some fluctuations, the temperature inside the "greenhouse" can be as much as 20° C warmer than the outside air.

As the seedlings grow, prop up the cover with wooden stakes, so that the leaves do not touch the plastic and the foliage is not scorched. Monitor the moisture level carefully, watering if necessary or airing out gently if it is too damp.

Around the time of the normal frost-free date, begin acclimating the young plants to the lower humidity and temperature of the outside environment by opening the ends of the plastic for a few hours on warm, still days. Repeat the procedure for increasingly longer periods of time for a week, after which you can remove the plastic completely and store it for use the next year.

A few days later, thin the corn to about six or eight inches. To support and protect the roots, take soil from the north side of the slope, pull it between the plants and fill in the trench on the south side.

The rest is easy. With some weeding, watering, and a little luck, you too can look forward to the sweetest—and earliest—corn around. Δ



Squash seeds are a delicious, nutritious snack

By Robert K. Henderson

Squash are a favorite homestead garden crop, offering abundant harvests for little effort. Yet many throw the delicious seeds on the compost pile, and that's a pity. Native Americans, whose talent for wholesome snacks gave us popcorn, tortilla chips, and beef jerky, valued the seeds of squash crops as much as the vegetable itself. In Mexico, "pepitas" remain an important staple to this day. Roasted squash seeds are a cheap, natural nibbler relished by kids and adults alike. Better still, they disappear like junk food while supplying fistfuls of nutrients: just one ounce of roasted pumpkin seeds contains five grams of protein and ten grams of dietary fiber, as well as significant quantities of calcium, phosphorous, and potassium.

Although pumpkins are the most prolific seed producers, all winter squash bear edible seeds. Even the hard, warty shells of over-ripe summer squash conceal a handful of small seeds that have a very delicate flavor when roasted. These are especially good in salads, on baked potatoes, and floating in soups. Roasted squash seeds also add character to granola, party mixes, and home-made ice cream. Dried, raw seeds may be oiled and sprinkled on cookies and quick breads before baking. With a little creativity, you can dream up dozens of uses for roasted squash seeds. Once they become a part of your pantry, you'll wonder how you got along without pepitas.

To collect raw seeds, split the squash lengthwise. This makes it easier to reach the neat seed rows nestled in the interior pulp. Use your hands to strip the rows into a pan of water. Put your hand in the pan and clench handfuls of slippery seeds in your fist. They will shoot out from between your fingers like tiny bars of soap, removing residual pulp in the process. Pour the seeds into a colander and run water through the batch to drive the shreds of pulp to the bottom. Scoop the clean seeds onto the shiny side of a piece of aluminum foil and pat them into a single layer, so that each seed is exposed to the air.

Before they can be stored or roasted, squash seeds must be thoroughly dry. Incompletely dried seeds toast up tough outside and mushy inside, and will mold in storage. For certain success, leave the washed seeds out at room temperature for several days or pop them into a warm oven for an hour or so. Commercial food dryers do a fine job, too. Properly dried, raw squash seeds will keep almost indefinitely if sealed in an airtight container. Roasted seeds can be stored for several months, although the oil on their shells will eventually turn rancid. Freezing lengthens the shelf-life of roasted seeds considerably.

Because toasting time varies, you should roast different varieties separately. For example, Hubbard squash seeds brown about twice as fast as pumpkin seeds, so you don't want to toast the two together. As a general rule, glossy seeds such as those of the spaghetti squash roast up crisper.

Seeds with a "flat finish,"

like those of jack-o'-lantern pumpkins, make for a chewier snack.

The following recipes can be whipped up in minutes, and are perfect for parties, trail food, or watching movies at home. They are also excellent nibblers to serve with fine homebrews or microbrews. All roasting times are based on pumpkin seeds. You may have to adjust them for other types.



Basic roasted seeds

1 cup squash seeds
1 teaspoon oil
Dash of soy sauce

Preheat oven to 300°. Place dry seeds in a mixing bowl and toss with oil. Add soy sauce and stir to coat each seed evenly. Spread seeds in a single layer on a foil-lined baking sheet and toast until crisp and golden brown, about 20-25 minutes. Be careful not to burn them. The soy sauce in this recipe adds a distinctive dimension to both the color and flavor of these nibblers.



Splitting the squash lengthwise makes it easier to remove the seeds.



Running water separates the seeds from the pulp.

Herbed seeds

1 cup squash seeds
1 teaspoon crushed dried oregano leaves
1 teaspoon crushed dried basil leaves
1/4 teaspoon sage
1/4 teaspoon thyme
1/4 teaspoon garlic salt
1/4 teaspoon black pepper
1 1/2 teaspoons melted butter

Preheat oven to 300°. Put all ingredients in a bowl, adding butter last, and mix thoroughly. Spread seeds immediately on a foil-lined baking sheet to prevent seasonings from settling to the bottom of the mixing bowl. Toast for 20-25 minutes or until crisp and golden. The butter in this recipe gives the seeds a delicate texture and flavor, and the black pepper lends just enough bite to keep things interesting.



Strip the seeds into a pan of water.

Spicy curry seeds

1 cup squash seeds
1 1/2 teaspoons olive oil
1 1/2 teaspoons curry
Dash of soy sauce
Pinch of cayenne

Preheat oven to 300°. Mix all ingredients thoroughly and proceed as for basic roasted seeds. Adjust cayenne to taste.

Taco seeds

1 cup squash seeds
1 1/2 teaspoons oil
2 teaspoons taco seasoning

Preheat oven to 300°. Mix all ingredients thoroughly and proceed as for basic roasted seeds. For variety, substitute packaged pesto powder and melted butter, or instant spaghetti sauce and olive oil. Δ

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Mugwort — From aiding digestion to relieving fatigue, this flavorful plant has many good uses

By Christopher Nyerges

Of all the plants that are found in the chaparral of southern California, mugwort is perhaps the most steeped in lore and mythology. Mugwort (*Artemisia douglasiana*) is a multiple-use plant, having been used for food, medicine, fire-starting, and other things.

I have known people who ate the raw mugwort leaves in salad and added it to sandwiches, in much the same way that you'd add a pickle or a piece of lettuce. However, I have always found it too bitter for my taste to eat raw. But once simmered in water and cooked like spinach, its appeal is increased. Southern California Indians gathered the mugwort seeds and ground them into meal to make bread products. Still, the food value of mugwort is not its greatest asset.

Healing

As an infused tea, mugwort is said to improve the appetite, to be good for the digestion, and to relieve stomach pains and fevers. An infusion from the dried leaves is applied externally for inflammatory swellings. Bruises are reputed to heal quicker if bathed with a mugwort infusion. As a bath additive, it's used for tired legs and feet. Plus, in the bath water, mugwort gives the bathroom a pleasant aroma.

With some people, it is customary to rub the fresh mugwort leaves over exposed portions of their body before entering poison oak areas in order to prevent the rash. Some Indians used the fresh leaves externally as a cure for poison oak and wounds.

Before I immunized myself from poison oak, I used the freshly-crushed leaves of mugwort rubbed over

newly-developing poison oak rash with good results. Aloe vera is the best treatment for poison oak that I have found, but you don't usually find aloe in the wild.

Mugwort gets its name from the English practice of putting a leaf of it in their mugs of beer to improve the flavor. ("Wort" is an Old English word meaning "herb.") This is still practiced in London pubs.

Vivid dreams

Sleeping on "pillows" of dried mugwort leaves is said to induce wild, vivid dreams and visions of the future. To test this, I placed several of the fresh leaves around my pillow. Those nights, I had very colorful dreams, though they were not what I would describe as "lucid," nor did I ever receive visions of the future. Nevertheless, some enterprising folks have begun to sell "dream pillows," which are small pillows stuffed with mugwort leaves.

Relief from fatigue

Folklore from various parts of the world says that a leaf of mugwort in the shoe will enable you to walk all day without leg fatigue. Nathaniel Schleimer of Pasadena, a student of acupuncture, pointed out to me that there may be some factual basis for this "folklore." Schleimer told me that there is an acupuncture point on the bottom of the foot which is said to "regulate fatigue."

The mugwort leaves which have naturally dried on the plant are collected and used in a therapeutic technique called acupuncture. These dried leaves, when rolled into small balls or into a cigar-shaped cylinder, are called *moxa*.



A Chinese species is said to be the best, but all species can be used in the following fashion, described by J.C. Cerney in his book Acupressure — Acupuncture Without Needles: “On the outside of the lower leg, below the level of the knee, is the head of the fibula. Just below and slightly in front of the head of the fibula is what the Japanese refer to as sanri or S 36. This is an important vitality-stimulating zone. It’s a point where weary Oriental foot travellers applied a burning ball of moxa, and with energy restored, travelled on.”

One of the most effective wilderness “punks” is made by gathering the leaves that have dried and browned on the stalk. Slide your hand along the lower stalk to gather the dried leaves and then roll them into a cigar. By lighting the end of this “cigar” and then wrapping the entire cigar in larger fresh mugwort leaves, you can effectively carry fire over long distances. This was the technique practiced by Southwestern Indian tribes for transporting fire from camp to camp. It can still come to the aid of today’s campers where matches are scarce or unavailable.

I have tested dozens of tinders, using both natural and man-made materials, and mugwort has consistently proven to be one of the best natural tinders.

The pleasant aroma of the burning leaves, used as incense, helps bring the aroma of the mountains to the home. In the late 1970s, Timothy Hall would sometimes burn mugwort incense in his Trucker’s Daily Bread Cafe, located in Highland Park (north-east Los Angeles), California.

Dried mugwort, mixed with other herbs, can also be smoked as a non-nicotine “tobacco.”

Finding it

Mugwort grows along the shady banks of canyon bottoms and along riverbanks in foothill and coastal regions. You almost always find it

near streams. Frequently it is found near poison oak.

The aromatic leaves are ovate to elliptic, and are often divided into three to five pinnate segments. The leaves near the top of the stalks become narrower, linear to lanceolate in shape, and generally are entire (not toothed). On the top side, the leaves are dark green and almost glabrous (hairless). On the underside, the leaves are covered with short, soft, white, wooly hairs, which is one of mugwort’s dominant characteristics.

Twenty to thirty very small flowers are clustered together to make up 1/6-inch-high heads. These heads are tightly clustered along spikes or rod-like stalks, which in turn are arranged (alternately) along the main stalk. The flowers are followed by the seeds. The year-old dried stalks are usually found alongside the new young plants, and it is from these old stalks that you can usually collect the dried leaves to use for tinder or incense.

Some people believe that young mugwort leaves, which somewhat resemble a hand held out with fingers spread, are effective in warding off evil spirits. Mugwort is hung over doorways, windows, chimneys, and other openings on Halloween in the belief that it protects against the evil effects of witchcraft and the entrance of malevolent witches. Pregnant women and newborn babies were considered particularly vulnerable on Halloween. For this reason, a pregnant woman would wear dried mugwort around her neck in a small bag, and mugwort would be laid in or around young babies’ cradles.

Mugwort’s folklore and various uses make it an interesting and valuable plant to know.

(Christopher Nyerges is the author of In the Footsteps of Our Ancestors: Guide to Wild Food and other books. His schedule of outings is published in the *Talking Leaves Newsletter*, available from the School of Self-Reliance, Box 41834, Eagle Rock, CA 90041. The newsletter can be viewed on-line at <http://home.earthlink.net/~nyerges/>.) Δ

A BHM moment



Dave and John celebrate the completion of another issue.

Ayoob on firearms

By Massad Ayoob

The backwoods hunter

“One does not hunt in order to kill,” wrote Jose Ortega y Gasset in his classic *Meditations on Hunting*, “one kills in order to have hunted.” Hunting is in many ways a metaphor of the backwoods lifestyle. One may have moved to the hinterlands to escape the blood lust of the cities, and find the killing of an inoffensive animal antithetical to their *raison d’être*, while another might find the primal hunting, killing, and eating of a wild creature to be the very essence of “going back to nature.”

The very argument is a part of the “live and let live” value system of the backwoods homesteader. Unless he’s unclear on the concept, the vegetarian who wouldn’t harm a fly won’t dump on the hunter who kills his family’s winter meat in the forest, and the hunter won’t sneer at the vegetarian as a lightweight yuppie hiding out in woods he doesn’t understand. Personally, I take a middle ground.

As a youngster, I lived to hunt: it was what you did every fall if you were a boy in rural northern New England. The male paradigm, male bonding, all of that. Late in my teens, when my only sibling died in my arms, I lost my taste for killing and stopped hunting for a long time.

I eat meat, venison being my favorite. Wild meat is the healthiest. Living in a nation of bloated hypertensives with fat-clogged arteries, I was struck in South Africa by the number of old Boers I met who were 80 and looked 60, or were 60 and looked 40, and had eaten the meat of the native antelope morning, noon, and night for all their lives. Little fat, no

steroids...healthy food of the kind that made *Homo Sapiens* the dominant predator of the planet, whether the given specimen appreciates that heritage or not.

Being a meat eater, I’d be a hypocrite if I damned hunting. Buying your meat in a store is like paying the hit man to commit your murder for you: you have to accept moral responsibility for the death in question either way, and a middleman firing the bullet or slitting the throat does not exculpate you at all. Thus, while I will listen to anti-hunting arguments, I will listen to them only from those who wear cloth shoes and plastic belts and eat no meat whatsoever.

At the same time, if you are a hunter, the time should come when the animal is in your gun sights and you spare it if you don’t absolutely need to kill it for food. You want to know in your heart that it was your finger pulling the trigger, not the trigger pulling the finger. The greatest understanding of the power to kill lies in the realization that you have the power not to. And—parents, proselytizers of the backwoods faith to the urban refugees, and all the rest—hear me well on this: Never force someone to kill an animal if they don’t truly want to have the experience!

That said, let’s look to the mechanics. Take Hunter Safety classes from your local office of the state fish and wildlife department, or someone they’ve authorized to teach them. Learn navigation of the forest, and hostile environment survival skills, if you haven’t already. Realize that hunting today is not time and cost efficient: hard labor at minimum wage



Massad Ayoob

will probably buy your family more food per hour spent than deer hunting. You do it for the sport and the venison, not for subsistence, unless you’re desperate.

Use a good weapon and practice with it until you are skilled. Determine the distance at which you can place your bullet, your arrow, or your rifled shotgun slug into a six inch circle virtually every time, and do not shoot at an animal beyond that distance. This saves the animal needless suffering, and it saves you the grief and recrimination of crippling a beautiful animal or dooming it to an agonizing death. If you have dealt with Death, you know that “clean kill” is not an oxymoron, but rather, the responsibility of those who are for whatever reason involved with the legal and ethical ending of Life.

When it is over, you will one night sit down to a venison dinner that you brought home. The sensation will be rather like the satisfaction you feel eating vegetables you’ve sown into the earth, tended, and harvested. There will be a sense of accomplishment, of a primal circle having been complet-

ed, of independence and personal capability being confirmed.

Local gun dealers and conservation officers will give you the best advice on the types of guns and ammo or bows and arrows to use for the given quarry in the given topography, and they can steer you to local meat cutters who process game and can best advise you on how to dress, butcher, and cook the meat you harvest from the wild. The nearest village library in a rural area should be replete with books on hunting and tracking wild game and preparing it for the table. Read and absorb these books. If you're new to rural environs, let it be known that you'd like to find an old woodsman and trade his lore for yours, teaching him to surf the net while he teaches you to hunt in these parts. You'll be surprised how often such "skill barterers" work, how often those who grew up in the wilds you coveted seek the accouterments of the high-tech advanced civilization you were wise enough to escape.

Give hunting a chance. It may add a new dimension to your backwoods home experience. At best, you'll know the exultance of eating meat you've hunted and harvested. At worst, if you come out against hunting, you'll have

earned the right to an informed opinion, for someone who claims others shouldn't do what they themselves can't do are in the position of a eunuch preaching celibacy: their argument simply carries no credibility. Δ

A BHM moment



The old BHM office in the Siskiyou Mountains of Oregon.

Leaf mold is another way to build your soil

By John Fuchs

Leaves are an excellent way to add organic matter to the garden. However, using raw—or unprocessed—leaves has some drawbacks. Raw leaves are more acidic than composted leaves, and studies have shown that they take nutrients from the soil—particularly nitrogen—as they decompose. Because of this nitrogen depletion, adding raw leaves to your garden can reduce the yield of vegetable crops.

The solution to the problem is to compost the leaves and add the compost to the garden. The drawback to this approach is the time required to make the compost. In northern climates, it is even more difficult and time-consuming to make compost, because the leaves freeze solid, and the breakdown of the leaves is often incomplete come springtime.

A good compromise is to make and use *leaf mold*. Leaf mold is a halfway step in the process that turns raw leaves into composted matter. To make leaf mold, take raw leaves and shred them by running a lawnmower over the

leaves. The shredding of the leaves greatly accelerates the breaking down process. I empty the mower bag into a plastic bag and add a handful of lime (to counter the acidity of the leaves) and a cupful of blood meal (to provide nitrogen). Then I dampen the leaves and shake the bag well.

Every few weeks, I open the bag and stir up the leaves. When the leaf mold freezes, I break it up as much as possible. Come springtime, the bags are full of friable black leaf mold which I spread right over the garden plot and till in. Studies have shown that leaf mold holds at least five times as much moisture as ordinary topsoil, so I always apply it to my flower beds instead of peat moss.

The advantages of leaf mold are many. It provides the tilth and moisture-holding capacity of compost and peat moss, but it's easier to make than compost and far cheaper than peat moss. While it doesn't provide as much nitrogen, phosphorous, and potassium as manure, it is rich in calcium and magnesium, which are essential for healthy vegetables. Best of all, the raw materials of leaf mold—leaves—are abundant in much of North America. Δ

Venison deserves gourmet treatment

By Edith Helmich

Whether you use a bow or a gun, bagging a deer is an adventure in the field, and a promise of succulent meals to follow. Too often, however, the venison is simply roasted or used in a few unimaginative recipes. Venison is a gourmet meat and should be the focal point of wonderful meals.

Good game recipes are hard to find. Cookbooks tend to feature meats that are available at the supermarket, and typically include only a few recipes for game. The recipes that follow were gathered from a variety of kitchens and culinary sources and modified over the years. They were chosen on the basis of taste, appearance, and ease of preparation. (Remember, you don't have to tell anyone that it took you so little time to prepare such delicious recipes.) Try them all, and you just may expand your reputation as a hunter to a chef specializing in game.

Dressing a deer in the field is fundamental knowledge among hunters, and will not be discussed here. Dressing the deer properly and promptly, of course, is very important to the flavor and quality of the venison.

Another well-known characteristic affecting the quality of the venison is the age of the animal. Some cooks believe that all game, particularly venison, should be marinated before cooking, but that is not necessarily so. The meat from a deer under one year of age (a fawn), or from one to two years of age (a yearling), is tender and mild-flavored

without any marinade. Certainly a mature deer's meat requires a good marinade to guarantee tenderness and minimize the wild or "gamey" flavor. Deer and elk meat are used interchangeably in most recipes for venison. Two of the recipes that follow call for a marinade, either to tenderize or to add flavor.

Venison steak St. Hubert

This recipe places the venison in marinade the night before serving, and requires a very short preparation time. The slightly sweet-sour sauce is wonderful on venison. Despite the gourmet title, it is an easy recipe to prepare. Serves four.

4 venison round steaks, $\frac{1}{2}$ - to $\frac{3}{4}$ -inch thick
(about 2 pounds)

Marinade:

2 sliced carrots
2 sliced onions
1 chopped clove of garlic
2 cups of dry white wine
 $\frac{3}{4}$ cup vinegar
 $\frac{1}{4}$ cup water
 $\frac{1}{8}$ teaspoon thyme
2 bay leaves
2 or 3 whole cloves
3 or 4 whole peppercorns
 $\frac{1}{2}$ cup corn oil or olive oil

Place steaks in an enamel, glass, or earthenware dish. Pour the uncooked marinade over the meat, cover, and refrigerate for 24 hours.

Drain the marinade from the steaks into a saucepan, straining out the marinade vegetables. Bring the liquid to a boil and reduce by half.

Gently dry the steaks with a paper towel and sauté them in a small amount of hot fat until brown on both sides. Medium to medium-rare will provide maximum tenderness.

Place on a platter and cover with the following sauce:

Sauce Poivrade (1 cup):

2 Tablespoons flour
2 Tablespoons butter
2 crushed peppercorns
1 cup reduced marinade
3 Tablespoons red currant jelly



Brown flour in butter. Add peppercorns, reduced marinade, and currant jelly. Cook over medium heat, stirring until smooth.

Succulent venison stew

If you want to throw a bigger party, this recipe serves a crowd of eight to ten people. Again, the venison is placed in a marinade the night before, but this recipe requires a longer cooking time. This dish actually improves if made a day early and reheated before serving. A mature deer would work well with this dish.

3 to 4 pounds of fat-trimmed venison, cut into 2" cubes

Marinade:

2 thinly sliced onions
1 thinly sliced carrot
2 stalks celery, cut in large chunks
1 garlic clove, crushed
2 cups red wine
1/2 cup salad oil
1/4 teaspoon thyme
1 teaspoon salt
1/4 teaspoon thyme
2 bay leaves
10-12 black peppercorns
2 cloves

Place cubes of venison in a non-metal container, pour uncooked marinade over the meat, and refrigerate for a full 24 hours.

About two and a half hours before serving, drain and save marinade, discarding vegetables. Dry meat gently on paper towels. Continue with the following recipe for the stew.

Stew:

1/2 cup salad oil
1 cup diced salt pork
1 large onion, chopped
2 carrots, sliced
1 pound mushrooms, sliced
2 Tablespoons brown sugar, packed
3 Tablespoons flour
1 clove garlic, chopped or pressed
1/2 cup red wine
2 cups reserved marinade
Salt & pepper to taste

Sauté oil and salt pork until lightly browned. Add onion and carrots and cook until moderately browned. Sprinkle brown sugar over vegetables, stir well, and remove from pan.

In the same pan, sauté mushrooms until lightly cooked and remove from pan.

Still using the same pan and adding a little more oil (if necessary), brown stew meat. Sprinkle meat with flour and continue cooking until flour is also brown. Add wine and marinade (and additional water, if necessary) to cover meat. Cover pan and simmer on very low heat for one to one and a half hours. Add the reserved vegetables and cook for an additional 30 to 40 minutes.

Serve over rice and sprinkle with chopped parsley. A blend of wild and white rice is very good with this dish.

Roast leg of venison with lingonberry sauce

For a very large dinner, such as a special-occasion family gathering or holiday dinner, a traditional roasted leg of venison with lingonberry sauce is a delicious choice. Because this recipe uses no marinade, venison from a deer no older than a yearling is recommended. Serves 10 to 12.

1 six- to eight-pound leg of venison
1 teaspoon salt
1/2 teaspoon ground ginger
1/2 teaspoon ground pepper
1/2 cup beef stock
1/2 cup melted butter

Combine dry seasonings and rub into meat. Place roast on a rack in a roasting pan and cover with lid or foil. Roast in a 325° oven for approximately three hours, or until meat tests tender when pierced with a fork. Baste frequently with butter-and-water mixture while cooking.

Remove roast from pan to serving plate and cover with foil. Save pan drippings and liquid. While the roast sets its juices, make the sauce.

Lingonberry sauce:

1 eight-to-ten-ounce can of lingonberries with juice
Pan drippings (fat skimmed off)
plus enough water to make 1 cup
6 - 7 Tablespoons of sugar
3 Tablespoons of cornstarch
dissolved in 1/2 cup cold water
1 Tablespoon butter

Combine all ingredients in saucepan and bring to boil over medium heat, stirring constantly. Pour a small amount of sauce over the roast before carving, and serve the remaining sauce at the table.

Any one of these recipes will provide a memorable experience. Good hunting and good eating. Δ

Southern cooking that doesn't just whistle Dixie

By Richard Blunt

The southern region of the United States is almost as big as Western Europe, and despite the stereotype that non-Southerners have—that there is only one South—when someone says, “I am Southern,” the South contains almost as many subcultures as Europe has countries. This cultural diversity shows especially in Southern cooking. A close look at the culinary practices in this region will reveal the influence of German, Dutch, Spanish, French, Scottish, Irish, Native American, Asian, English, and African cultures. The result has been the rise of three broad and distinctive Southern cuisines: Classic Southern, which is a blend of Anglo Saxon and African roots; Southwestern, with its Spanish influenced ranch style cooking; and Creole/Cajun, a mixture of French Canadian, Native American, and African cuisines.

English and African roots

Southern cooking—in fact, all “American” cooking—started nearly 400 years ago when a small group of weather-beaten, malnourished refugees landed on the eastern shores of North America. They’d left their homes, most of their relatives, and almost all their possessions in England and set sail for a new homeland where they sought religious freedom. In a very short time they established successful colonies at Plymouth in Massachusetts and at Jamestown in Virginia.

In spite of the dramatic climactic differences between the two colonies, the British women in both colonies set up their kitchens to accommodate the cooking style they had learned at home. But because winters in the Plymouth colony were cold and long, the settlers continued to rely mainly on the simple fortifying foods that were central to their Old World Puritan cooking style. Basic elements of this style survive today in New England Yankee cooking, e.g., when brine-cured meats and hearty leaf and root vegetables are combined to make boiled dinners.

Meanwhile, the milder climate experienced in the Virginia colony made life generally easier. And, though meals were also prepared along traditional lines, they were done so with a more relaxed attitude, meaning that in Jamestown the colonists made use of the more plentiful foods available there including a larger variety of vegetables and more herbs and spices. But even with this relaxed attitude toward traditional culinary practice, the food prepared in both was essentially the same.



Richard Blunt

There is a myth that early English cooking and, therefore, the cooking style the colonists brought with them, was plain, simple and unimaginative. The truth is that from the beginning of 17th century to the early part of the 18th century there was a Renaissance in English cooking. English cookbooks from that time show evidence that this was a cuisine rich with a variety of herbs and spices in which foods were crafted by techniques that contributed subtleties of flavor and texture.

At the center of all of this was the ancient art of open hearth cooking. This is the most dangerous and back breaking way of preparing food that I can think of, but it imparts a flavor and texture to food that is impossible to duplicate by any other cooking method. Cooking on an open hearth requires the use of very specialized tools and utensils. Adjustable spits used for roasting gave the cook complete control over the roasting process. An array of cranes and pulleys made it possible to move pots closer or farther from the heat. There were Dutch ovens, with long legs and tight-fitting deep-rimmed lids which were buried in the hot coals to allow the contents to cook while the coals slowly cooled, thus creating stews, soups, and other wonderful dishes that exuded flavors and aromas that are all but unknown today.

Using these and other special utensils like long legged chaffing dishes, iron forks and tongues, salamanders for browning, gridirons for frying and grilling, long handled waffle and wafer irons, and clay brick baking ovens all required a sense of timing and a mastery of this cooking technique that is nearly a lost art. By the time you read this column, I will be participating in a special workshop called

“Mastering The Art of Open Hearth Cooking.” I will share that experience with you in a future column.

Southern cooking blossoms

More important to Southern cooking, however, was an event, scarcely noticed at the time, that took place at Jamestown. In 1619 a Dutch ship anchored off the coast and offered the colonists a handful of slaves transported from Western Africa. Thus began the slave trade in North America and for the next two centuries African slaves were put to work supporting all aspects of the South’s agrarian economy. This included all of the food production responsibilities in many Southern kitchens.

Like their English sisters, the African women brought their native cooking techniques with them, and, once in the English kitchens, they demonstrated a natural flair for blending the ingredients they found there with other ingredients they were already familiar with, but which were new to the English palate. The resultant earthy foods, served in elegant style, have made Southern cooking legendary and it has survived political and social upheaval, wars, industrialization, and attempts by the commercial and fast food industry to bastardize it.

It was during the first half of the 19th century that Southern cooking really blossomed. All elements of the formula came together and were supported by the South’s rich economy. The tables of the upper and middle class households displayed some of the finest foods that could be found in this country.

Several critical events, however, would dramatically change the South and bring this era to an abrupt halt. When the War Between the States and the Emancipation Proclamation ended slavery, the legacy of African cooks running Southern kitchens came to an end. African cooks lost the Anglo Saxon influence and the Anglo Saxon households lost the creative ingenuity of the African cook. Poverty settled on the South, forcing most households to adopt simple diets of field peas, wild and cultivated greens, sweet potatoes, and a variety of dried corn products, supplemented by inexpensive pork products. A whole generation of Southern women left their kitchens and went into the

work force, leaving little time for anything but essential cooking. Still, as meager as the food was, over the years even this food fare has been refined in Southern kitchens to the level of signature cuisine that any Southerner can be proud of.

Another factor in the nineteenth century that affected the cooking was the mass production of cast iron ranges that were sold at prices that most households could afford. This revolution in kitchen technology changed all American cooking because it signaled the end of open hearth cooking. But the inexpensive and convenient cast iron range could not produce the same results as spit roasting of meats before

a hot fire and crusty breads like those baked in wood fired clay brick ovens.

Then the packaged food industry started to market off-the-shelf canned foods as an easy, but low quality alternative to the traditional labor-intensive methods of home preserving. The age of synthetic cheese, ham made with gluten, and imitation bacon had begun. American food was on its way to gastronomic disaster. It is a loss from which it has never fully recovered. Fortunately, in the South, tradition has never been considered an anecdote; and the legend of Classic Southern food has been kept alive throughout the region. And wherever Southerners have migrated, they have brought their cooking with them. On top of this, the culinary works of

great 17th and 18th century authors have recently been revitalized to celebrate the past glories of traditional Southern cooking.

The first American epicure

The first great American epicure of note was from the South. He was Thomas Jefferson, to some, the greatest American President. He not only served as President, he was a governor of Virginia, Secretary of State under Washington, and an American minister to France. But his first loves were farming and overseeing all of the culinary operations at Monticello. He himself designed Monticello along with its kitchen, and he never lost an opportunity to play host. At times he entertained as many as 50 guests in his custom built dining room. But because of his fascination with French foods and wines, he was accused by other



Thomas Jefferson

native Virginians of “rejecting his native victuals.” It was an unfair accusation because Jefferson also relished such Southern delicacies as corn, dry cured Virginia ham, Jerusalem artichokes, scalloped tomatoes, peas, and rice. He grew 30 different varieties of peas at Monticello and risked becoming a criminal on death row because he smuggled seed rice from Italy into the United States for planting in his gardens—a capital offense at the time that was punishable by hanging. Every year Jefferson’s April 13th birthday is celebrated with a lavish dinner party at his mansion. Of course classic Southern food is always a part of the menu.

To tell the story of Southern food would require an epic of several volumes. There are no boundaries where one can say Southern cooking starts and ends, and its ingredients are as varied as the mixture of different cultures that call the South home. There is no way I can do justice to it with the space I’m allowed in this column. But with what I do have, I will share with you some recipes that have been passed from my grandmother to my mother, and now they belong to me. There is nothing highfalutin (as my grandmother would say) about these foods. In fact, there is a certain grace in their simplicity and an elegance in the natural unmasked flavors that Southern fare offers all who appreciate good food.

Fried chicken

It would be blasphemy to discuss Southern food without giving some attention to fried chicken. The recipes and cooking methods for fried chicken are endless. Put a bunch of Southern cooks in the same room and they’ll disagree on everything from the ingredients to the actual cooking

method. Some will insist that disjointed chicken, salt, pepper, flour, and fat are all that are necessary to make honest fried chicken. Others will make the same claim after adding to the formula various combinations of eggs, buttermilk, sweet milk, corn meal, bread crumbs, cracker crumbs, baking powder, and almost every variety of herb and spice known to man.

Some insist on frying in deep fat, others say shallow fat. They can’t even agree on the type of fat. You’ll hear lard, corn oil, and peanut oil each considered “best” by different cooks. So, if fried chicken is a must for you, I suggest that you consider your own taste and select the recipe and production method that you think comes closest to what you like.

Beware of recipes that tout themselves as “authentic Southern fried chicken” because there isn’t any single such thing. But, if you want to try a chicken recipe that is as Southern as you can get, without going through the mind boggling variations of frying, my grandmother’s Benne (pronounced *’ben ay*) Bake recipe is just the answer. Serve it hot for dinner with or without gravy, or chill it and plan a picnic.

Nanny B’s Benne Bake

Ingredients

1 two pound frying chicken — cut into eight pieces

Undercoating

1 cup all purpose flour

$\frac{1}{2}$ tsp salt

$\frac{1}{2}$ tsp freshly ground black pepper

Middlecoating

$\frac{3}{4}$ cup Buttermilk

Overcoating

12 ounces ground pecans (ground with the coarse blade of a meat grinder or in a food processor)

$\frac{2}{3}$ cup white benne (sesame) seeds

$\frac{1}{2}$ tsp cayenne pepper (ground)

$\frac{1}{4}$ tsp nutmeg (fresh ground from whole seed if possible)

$\frac{1}{2}$ tsp salt

Method

1. Wash the chicken pieces in cold water and dry on paper towels.

2. Preheat the oven to 375 degrees F.

3. Combine undercoat ingredients in a brown paper bag and set aside.

4. Combine overcoat ingredients in a large bowl and mix.

5. Place middlecoating (buttermilk) in another large bowl.

6. Oil a roasting or baking pan that is large enough to hold all the chicken.



Beet, dandelion, collards

7. Place all of the chicken in the bag with the undercoating and shake until the chicken pieces are evenly coated with the flour mixture.

8. Remove the chicken pieces from the bag and shake off any excess flour.

9. Place the chicken pieces into the buttermilk and gently toss to coat each piece with milk.

10. Roll each piece of chicken in the overcoating until evenly coated and place on the oiled pan.

11. Bake on the middle shelf of the oven until the coating is a medium brown and the chicken is cooked through (about 40 minutes).

Note: This recipe produces a chicken that has a wonderful tasting and crispy coating that keeps the chicken moist and tender. If you are counting calories, this coating works with skinless chicken as well. It also works with center cut pork chops and firm fleshed fish such as catfish, eel, tuna, or swordfish.

Stewed Winter Sallet

Sallet (pronounce the “t”) is an old English word for greens. Turnip greens, mustard greens, dandelion greens, Swiss chard, collards, beet greens, and spinach are some of the most popular greens that grow in profusion in the South. Today they are one of the mainstays of Southern cooking, but there was a time when greens were considered unattractive food at all but the poorest dinner tables. Over the years the ingenuity of those who did the cooking in poor households transformed this humble food into a distinctive cuisine by mixing and matching with other basic foods like corn, rice, beans, and inexpensive cuts of pork.



Cabbage, chard



Mustard, turnip

The following recipe, stewed winter sallet, has been served by my family at dinner on New Year's Day for as long as I can remember.

Ingredients

8 oz dry cured lean salt pork
2¹/₂ qts water
1 medium onion sliced
2 pounds fresh collards, kale, or cabbage (If you use kale, choose only young leaves. Kale becomes bitter as it matures.)
2 fresh hot chilli peppers cut in half, seeded and deveined.
Fresh ground black pepper to taste.
Kosher salt to taste

Method

1. Cut the salt pork into eight pieces and saute over medium heat in a heavy bottomed skillet until lightly browned. Combine the pork, water, and onion in a very large pot and bring the mixture to a slow boil. Reduce the heat, cover the pot, and allow the pork to cook for about a half hour at a very slow boil.

2. Wash the greens in plenty of cold water, cut away of any tough stems and cut the greens into ³/₄ inch strips.

3. When the pork has simmered for a half hour, raise the heat to bring the broth to a medium boil; add the greens and chilli pepper and bring the mixture back to a boil. Reduce the heat to a slow simmer and cook the greens until they are tender. Cooking time will vary depending on the type of greens. Young kale takes only about twenty minutes.

Hardier greens like collards and cabbage will take up to an hour.

4. A few minutes before removing greens from the heat, taste the broth and adjust the seasoning with the salt and pepper.

Pepper Sherry

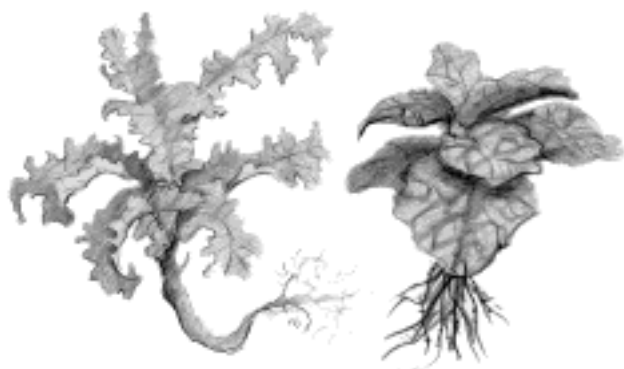
This is a table condiment used in the deep south to add extra zing to everything from soups to vegetables. I carry a small bottle with me when I go to food shows to help me through a day of tedious tasting. It will also enhance the taste of any cooked greens without masking the flavor. It takes only a few minutes to make and will last in the refrigerator forever. If you want to put some in a small bottle to bring to your favorite restaurant, it will live without refrigeration.

Ingredients

2 or 3 fresh hot chilli peppers. (I use habañero, Scotch bonnet, or jalapeno because they are both hot and flavorful.)
2 cups your favorite sherry

Method

1. Cut the peppers in half and remove the seeds. Dice the seeded peppers into medium chunks.
2. Scorch the peppers in a heavy bottomed skillet over medium heat being careful not to allow them to burn. Do not use any oil or other fat to lubricate the pan.
3. Combine the peppers with the sherry in a Mason jar or other suitable bottle, and refrigerate, covered, for 24 hours.



Kale, spinach

Before using this condiment, I suggest that you taste a little first, to see just how hot it is.

Hoppin John

This old Lowcountry rice and bean dish has a fascinating history that goes back to the late 1600s when Dr. Henry Woodward planted the first crop of Madagascar rice near Charleston, S.C. By the 1800s, Carolinians were using rice for currency and named their rice “Carolina Gold”.

Slave cooks from West Africa slowly introduced this dish to South Carolina as they were allowed to introduce their cookery into planters’ kitchens. Today Carolinians eat this dish on New Year’s Day to bring good luck in the coming year. If you’re interested in reading more about Hoppin’ John history, buy a copy of [The Carolina Rice Kitchen](#) by Karen Hess. But first try this recipe to get a taste of a food that is as classic Southern as fried green tomatoes or baked yams.

Ingredients

6 oz lean salt pork cubed
1 medium onion diced medium
2 cloves minced garlic
1 cup long grain Texmati brown rice
2½ cups water
½ tsp Kosher salt
½ tsp fresh ground black pepper
1 bay leaf (fresh if you can find it, but dried bay works well also)
¼ tsp red pepper flakes or cayenne pepper
4 cups fresh or frozen black-eyed peas (I grow my own and freeze what I don’t eat during the season. High quality frozen varieties are also available in most markets.)

Method

1. Place the salt pork in a heavy skillet (cast iron works best), and fry over a medium heat until lightly browned. Add the onions and garlic and saute until the onion is translucent.
2. Add rice and stir to coat grains with fat. Add the water, salt, black pepper, bay leaf, and red pepper; bring the water to a boil, reduce the heat to very low, cover the skillet and cook the rice on low heat for 10 minutes. Remove the cover and add the black-eyed peas. Do not stir.
3. Cover the skillet again and cook slowly for 30 minutes. Remove the skillet from the heat and let stand undisturbed for another 10 minutes. Remove the cover and gently fluff the rice with a fork to incorporate the black-eyed peas. Serve at once.

That’s it for this issue, but remember, when they say, “The South will rise again,” it’s going to be because their cooks are taking over. Δ